SANYO

INSTRUCTION MANUAL

HV-DX1E

DVD Player + Video Cassette Recorder

DVD VIDEO™ · COMPACT disc DIGITAL AUDIO · COMPACT disc DIGITAL VIDEO · MP3 DIGITAL AUDIO · VHS PAL · VIDEOplus+®

dts DIGITAL OUT · DOLBY DIGITAL · 3D Surround Sound · Hi-Fi
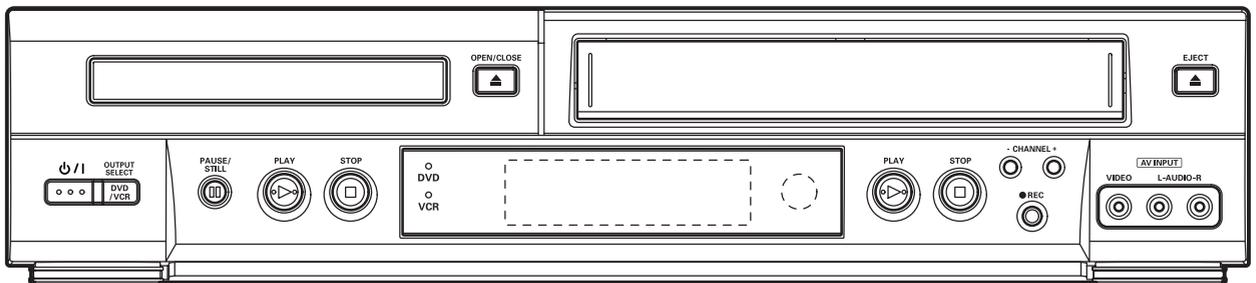
Only cassettes marked VHS can be used with this DVD+VCR.

Please read this manual carefully before connecting your DVD+VCR and operating it for the first time.
Keep the manual in a safe place for future reference.

Safety Precautions

Beware of moisture condensation

Moisture in the air will condense on the DVD+VCR when you move it from a cold place to a warm place, or under extremely humid conditions — just as water droplets form on the surface of a glass filled with cold liquid. Moisture condensation on the head drum will cause damage to the tape. In conditions where condensation may occur, keep the DVD+VCR's power turned on for a few hours to let the moisture dry.

● The unit is not completely disconnected from the mains when the ⏻/| button is set to the ⏻ position.

Contents

About the symbols for instructions

⚠ Indicates hazards likely to cause harm to the unit itself or other material damage.

$\mathcal{N}$ Indicates special operating features of this unit.

$\mathcal{T}$ Indicates tips and hints for making the task easier.

VIDEO Plus+ and PlusCode are registered trademarks of Gemstar Development Corporation.

The VIDEO Plus+ System is manufactured under licence from Gemstar Development Corporation.

Playable Discs

DVD VIDEO™	DVD (8 cm / 12 cm disc)
COMPACT disc DIGITAL VIDEO	Video CD (VCD) (8 cm / 12 cm disc)
COMPACT disc DIGITAL AUDIO	Audio CD (8 cm / 12 cm disc)

In addition, this unit can play a CD-R or CD-RW that contains audio titles or MP3 files.

𝒩 Notes

– Depending on the conditions of the recording equipment or the CD-R/RW disc itself, some CD-R/RW discs cannot be played on the unit.
– The unit cannot play the CD-R/RW discs that contain no data, or contain different kinds of formatted data other than MP3 and CD-DA data.
– Do not attach any seal or label to either side (the labeled side or the recorded side) of a disc.
– Do not use irregular shaped CDs (e.g., heart-shaped or octagonal). It may result in malfunctions.

𝒩 Notes on DVDs and Video CDs

Some playback operations of DVDs and Video CDs may be intentionally fixed by software manufacturers. As this unit plays DVDs and Video CDs according to disc content designed by the software manufacturer, some playback features of the unit may not be available, or other functions may be added.
Refer also to the instructions supplied with the DVDs and Video CDs. Some DVDs made for business purposes may not be played on the unit.

Regional code of the DVD+VCR and DVDs

2

This DVD+VCR is designed and manufactured for playback of region "2" encoded DVD software. The region code on the labels of some DVD discs indicates which type of player can play those discs. This unit can play only DVD discs labeled "2" or "ALL". If you try to play any other discs, the message "Check Regional Code" will appear on the TV screen. Some DVD discs may not have a region code label even though their playback is prohibited by area limits.

𝒩 Note on DTS-encoded CDs

To avoid possible damage to the audio system, turn down the volume before playing back such discs, adjust the volume gradually, and keep the volume level low. To enjoy DTS Digital Surround™ playback, an external 5.1 channel DTS Digital Surround™ decoder system must be connected to the digital output of the unit.

Disc-related terms

Title (DVD only)
The main film content or accompanying feature content or additional feature content, or music album. Each title is assigned a title reference number enabling you to locate it easily.

Chapter (DVD only)
Sections of a picture or a musical piece that are smaller than titles.
A title is composed of one or several chapters. Each chapter is assigned a chapter number, enabling you to locate the chapter you want. Depending on the disc, no chapters may be recorded.

Track (Video CD and audio CD only)
Sections of a picture or a musical piece on a video CD or an audio CD. Each track is assigned a track number, enabling you to locate the track you want.

Scene
On a video CD with PBC (Playback control) functions, moving pictures and still pictures are divided into sections called "Scenes". Each scene is displayed in the menu screen and assigned a scene number, enabling you to locate the scene you want.
A scene is composed of one or several tracks.

Types of video CDs

There are two types of video CDs:

Video CDs equipped with PBC (Version 2.0)
PBC (Playback control) functions allow you to interact with the system via menus, search functions, or other typical computer-like operations. Moreover, still pictures of high resolution can be played if they are included in the disc.

Video CDs not equipped with PBC (Version 1.1)
Operated in the same way as audio CDs, these discs allow playback of video pictures as well as sound, but they are not equipped with PBC.

Precautions

Handling the unit

When shipping the unit
The original shipping carton and packing materials come in handy. For maximum protection, re-pack the unit as it was originally packed at the factory.

When setting the unit
The picture and sound of a nearby TV or radio may be distorted during playback. In this case, position the unit away from the TV or radio, or turn off the unit after removing the disc.
Do not install this equipment in a confined space, such as a book case or built in cabinet.

To keep the surface clean
Do not use volatile liquids, such as insecticide spray, near the unit. Do not leave rubber of plastic products in contact with the unit for a long period of time. They will leave marks on the surface.

Cleaning the unit

To clean the cabinet
Use a soft, dry cloth. If the surfaces are extremely dirty, use a soft cloth lightly moistened with a mild detergent solution. Do not use strong solvents, such as alcohol, benzine, or thinner, as these might damage the surface of the unit.

To obtain a clear picture
The DVD+VCR is a high-tech, precision device. If the optical pick-up lens and disc drive parts are dirty or worn down, the picture quality will be poor.
Regular inspection and maintenance are recommended after every 1,000 hours of use. (This depends on the operating environment.)
For details, please contact your nearest dealer.

Notes on Discs

Handling discs

Do not touch the playback side of the disc.
Hold the disc by the edges so that fingerprints will not get on the surface.
Do not stick paper or tape on the disc.

Storing discs

After playing, store the disc in its case.
Do not expose the disc to direct sunlight or sources of heat, or leave it in a parked car exposed to direct sunlight, as there may be a considerable temperature increase inside the car.

Cleaning discs

Fingerprints and dust on the disc can cause poor picture quality and sound distortion. Before playing, clean the disc with a clean cloth. Wipe the disc from the center out.
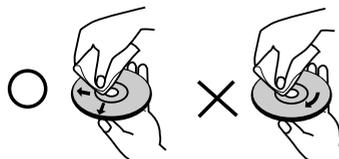
Do not use strong solvents such as alcohol, benzine, thinner, commercially available cleaners, or anti-static spray intended for older vinyl records.

About Symbols

About the ◎ symbol display

" ◎ " may appear on the TV screen during operation. This icon means the function explained in this instruction manual is not available on that specific DVD video disc.

About the disc symbols for instructions

A section whose title has one of the following symbols is applicable only to those discs represented by the symbol.

DVD DVDs
VCD2.0 Video CDs with the PBC (playback control) function
VCD1.1 Video CDs without the PBC (playback control) function
CD Audio CDs
MP3 MP3 discs

Setting the Output Source

You must select one of your output sources (DVD or VCR) to view on the TV screen.

• **If you want to view output source of DVD deck:**
Press DVD on the remote or DVD/VCR on the front panel until DVD indicator on the front panel lights and output source of DVD deck is viewed on the TV screen.

• **If you want to view output source of VCR deck:**
Press VCR on the remote or DVD/VCR on the front panel until VCR indicator on the front panel lights and output source of VCR deck is viewed on the TV screen.

• **To select output source, press the OUTPUT SELECT button on the remote control. Please see below. Note the DVD+VCR must be tuned into the TV stations before this feature can operate correctly.**
Operates only after Auto Tuning operation.
Cycles through the 3 main output views: DVD, Tuner and VCR.
DVD: To view the current DVD deck status. (disc playback, DVD menu or setup menu, etc)
Tuner: To view TV programmes through TV tuner.
VCR: To view the current VCR deck status (tape playback, VCR programming or viewing TV programmes through the VCR tuner, etc).

Disc Tray (DVD deck)
Insert a disc here.

EJECT(⏏)
Ejects the tape in the VCR deck.

CHANNEL (+/-)
To scan up or down through memorized channels.

Cassette Compartment (VCR deck)
Insert a video cassette here.

Remote Sensor
Point the DVD+VCR remote control here.

Display window
Shows the current status of the DVD+VCR.

OPEN/CLOSE (⏏)
Opens or closes the disc tray.
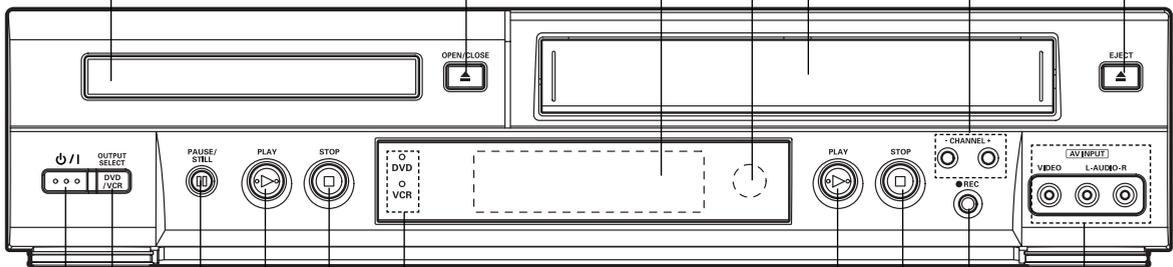
PLAY (▶)
Starts playback of a tape in
the VCR deck.

DVD/VCR indicator
Indicates the active deck.

STOP (■)
Stops playback of disc.

STOP (■)
Stops playback of tape.

PLAY (▶)
Starts playback of a disc
in the DVD deck.

REC (●)
To record normally or to activate
Instant Timer Recording.

PAUSE/STILL(❙❙)
Pause playback of a disc in the DVD
deck temporarily/ press repeatedly
for frame-by-frame playback.

AV INPUT (VIDEO IN/AUDIO IN (Left/Right))
Connect the audio/video output of an
external source (Audio system,
TV/Monitor, Another VCR).

OUTPUT SELECT (DVD/VCR)
Select the output source (DVD or
VCR) to view on the TV screen.

⏻/❙
Switches the DVD+VCR ON and OFF.

Display Window

CD Audio CD inserted
DVD DVD inserted
VCD Video CD inserted

A ↔ B Indicates A-B repeat mode.

ALL Indicates repeat all mode.

📹 ANGLE active.

MP3 MP3 disc inserted.

PROG. Programmed playback active.

TITLE Indicates current title number.

CHP/TRK Indicates current chapter or track number.

VCR DVD+VCR functions are available and channels are selected at DVD+VCR.

TIMER DVD+VCR is in timer recording or a timer recording is programmed.

REC DVD+VCR is Recording.

Oᴛ Front panel buttons are locked.

PR DVD+VCR is tuned to Channel Programme number.

BIL Indicates when a NICAM BILINGUAL broadcast is being received.

ST Indicates a stereo broadcast is being received.

Indicates total playing time, elapsed time, remaining time or current deck status (Playback, Pause, etc).

Hi-Fi Indicates the unit is playing back a tape recorded in Hi-Fi.

SP/LP/EP Displays the recording and playback speed.

A cassette is in the VCR deck.

7

DVD/VCR select button
Select the output source (DVD or VCR) to view on the TV screen.

⏻/|
Switches DVD+VCR ON and OFF.

TV/VCR
To view channels selected by the VCR tuner or by the TV tuner.

DISPLAY, CLK/CNT
Accesses On-Screen display. Switches among the clock, tape counter and tape remaining modes on the display.

◄/►/▲/▼ (left/right/up/down)
- Selects an option in the menu
- **CH/TRK (▲/▼)**: Selects channel of VCR. Adjusts manually the tape's picture on screen.

SETUP/i
Accesses or removes DVD setup menu and VCR menu.

TITLE ●
Displays the disc's Title menu, if available.

PAUSE/STEP (❚❚) ●
Pause playback or recording temporarily / press repeatedly for frame-by-frame playback.

STOP (■) ●
Stops playback.

REC (●) ●
Records normally or activates Instant Timer Recording.

0-9 numerical buttons
Selects numbered options in a menu.

AUDIO ●
Selects an audio language (DVD) or an audio channel (CD).

SUBTITLE ●
Selects a subtitle language.

MARKER ●
Marks any point during playback.

SEARCH ●
Displays MARKER SEARCH menu.

REPEAT ●
Repeat chapter, track, title, all.

RANDOM, CM-CUT ●
- Plays tracks in random order.
- Fast forwards picture search through 30 seconds of recording.

VIDEO Plus+ ●
To display the programme menu for VIDEO Plus+ System programming

A-B, SP/LP ●
- Repeats sequence.
- Selects recording speed

OPEN/CLOSE, EJECT (⏏)
- Opens and closes the disc tray.
- Ejects the tape in the VCR deck.

OUTPUT SELECT
Cycles through the 3 main output views: DVD, Tuner and VCR.

SELECT/OK
- Acknowledges menu selection.
- Displays functions on the TV screen.

DISC MENU
Accesses menu on a DVD disc.

AV
To select the VCR deck's source (Tuner, AV1, AV2 or AV3).

● FORWARD (►►|)
DVD; Search forward*/ go to next chapter or track.
VCR; Advances the tape during the STOP mode or for fast forward picture search.

● PLAY (▷)
Starts playback.

● BACKWARD (|◄◄)
DVD; Search backward*/ go to beginning of current chapter or track or go to previous chapter or track.
VCR; Rewinds the tape during the STOP mode or for fast reverse picture search.

* Press and hold button for about two seconds.

PROGRAM
Accesses or removes Programme menu.

CLEAR
Removes a track number on the programme menu or a mark on the MARKER SEARCH menu.

● LOCK
Switch the Lock function on and off.

● ANGLE
Selects a DVD camera angle if available.

● RETURN
Removes the setup menu.

● ZOOM
Enlarges DVD video image.
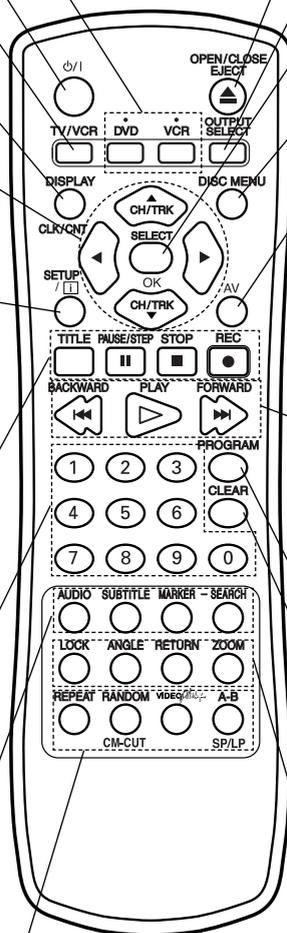
𝒩 Note
This remote control uses the same buttons for VCR and DVD functions (ex. PLAY).
When using a VCR, first press the VCR button.
When using a DVD, first press the DVD button.

Rear Panel

AUDIO OUT (Left/Right)
Connect to an amplifier, receiver or stereo system.

COAXIAL (Digital audio out jack)
Connect to digital (coaxial) audio equipment.

AERIAL
Connect the aerial using this jack.

EURO AV2 DECODER
Connect to another video recorder.

VHS IN+OUT/DVD OUT

DVD EXCLUSIVE OUT

EURO AV2 DECODER

AERIAL

DIGITAL AUDIO OUT

AUDIO OUT

EURO AV1 AUDIO/VIDEO

COAXIAL

RF.OUT

DVD/VHS OUT
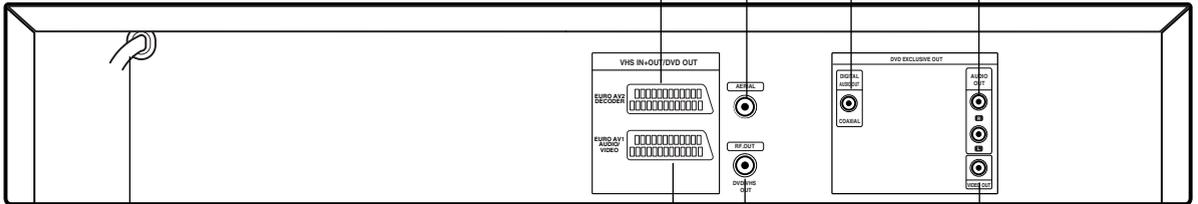
VIDEO OUT

Mains lead
Connect to a power source.

EURO AV1 AUDIO/VIDEO (VHS IN+OUT/DVD OUT)
Connect to your TV set or another video recorder.

RF.OUT
Connect to your TV using this jack.

⚠ **Caution**
Do not touch the inner pins of the jacks on the rear panel. Electrostatic discharge may cause permanent damage to the DVD+VCR.

VIDEO OUT
Connect to a TV with video inputs.

𝒩 **Note**
The EURO AV2 socket is used for signal input only. DECODER is shown but this DVD+VCR does not have it.

Remote Control Operation Range

Point the remote control at the remote sensor and press the buttons.
- **Distance:** About 7m (23ft) from the front of the remote sensor
- **Angle:** About 30° in each direction of the front of the remote sensor

Remote control battery installation
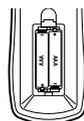
Detach the battery cover on the rear of the remote control, and insert two R03 (size AAA) batteries with ⊕ and ⊖ aligned correctly.

⚠ **Caution**
Do not mix old and new batteries. Never mix different types of batteries (standard, alkaline, etc.).

Connections

𝒯 Tips

- Depending on your TV and other equipment you wish to connect, there are various ways you could connect the DVD+VCR.
- Please refer to the manuals of your TV, Stereo System or other devices as necessary to make the best connections.
- For better sound reproduction, connect this DVD+VCR's AUDIO OUT jacks to the audio in jacks of your amplifier, receiver, stereo or audio/video equipment. See "Connecting to Optional Equipment" on page 11.

⚠ Caution

- Make sure the DVD+VCR is connected directly to the TV. Set the TV to the correct video input channel.
- Do not connect the DVD+VCR's AUDIO OUT jack to the phono in jack (record deck) of your audio system.

Connecting to a TV & Satellite Receiver

- Make one of the following connections, depending on the capabilities of your existing equipment.

Basic connection (AV)

1 Connect the **EURO AV1 AUDIO/VIDEO** on the rear panel of the DVD+VCR to the scart input socket on the TV using a SCART lead (**S**).

2 You can connect such a Satellite, Cable or Digital set top box to the DVD+VCR (**D**).

Basic connection (RF)

1 Connect the RF aerial cable (**A**) from your indoor/outdoor aerial to **AERIAL** jack on the rear panel of DVD+VCR.

2 Connect the supplied RF aerial cable (**R**) from the RF.OUT jack on the rear panel of DVD+VCR to your television's Aerial Input.

DVD exclusive out connection

- You can only watch the DVD playback.

1 Connect the VIDEO OUT jack on the DVD+VCR's DVD EXCLUSIVE OUT to the video in jack on the TV using the supplied video cable (**V**).

2 Connect the Left and Right AUDIO OUT jacks of DVD+VCR's DVD EXCLUSIVE OUT to the audio left/ right in jacks on the TV using the supplied audio cables (**A2**).

POWER: This DVD+VCR operates on a mains supply of 200-240V~, 50Hz.
This appliance is supplied with BS 1363 approved 13 Amp fused mains plug. When replacing the fuse always use a 5 Amp BS 1362 approved type.
Never use this plug with the fuse cover omitted.
To obtain a replacement fuse cover contact your supplying dealer.
If the mains sockets in your home differ, or are not suitable for the type of plug supplied, then the plug should be removed and a suitable type fitted.
If the mains plug becomes severed from the mains lead it must be destroyed. A mains plug with bared wires is hazardous if engaged in a mains output line socket.
If a 13 Amp BS 1363 plug is not suitable or any other type of plug used, then this appliance must be protected by a 5 Amp fuse.
Should you need to change the plug
The wires in this mains lead are coloured in accordance with the following codes
**BLUE ~ Neutral**
BROWN ~ Live
As the colours of the wires in the mains lead of this appliance may not correspond with the coloured markings identifying the terminals in your plug proceed as follows :
The wire which is coloured BLUE must be connected to the terminal which is marked with the letter N or coloured BLUE or BLACK.
The wire which is coloured BROWN must be connected to the terminal which is marked with the letter L or coloured BROWN or RED.
DO NOT connect either wire to the EARTH terminal.

Rear of DVD+VCR (DVD exclusive out connection)

Rear of TV

Satellite, Cable or Digital set top box
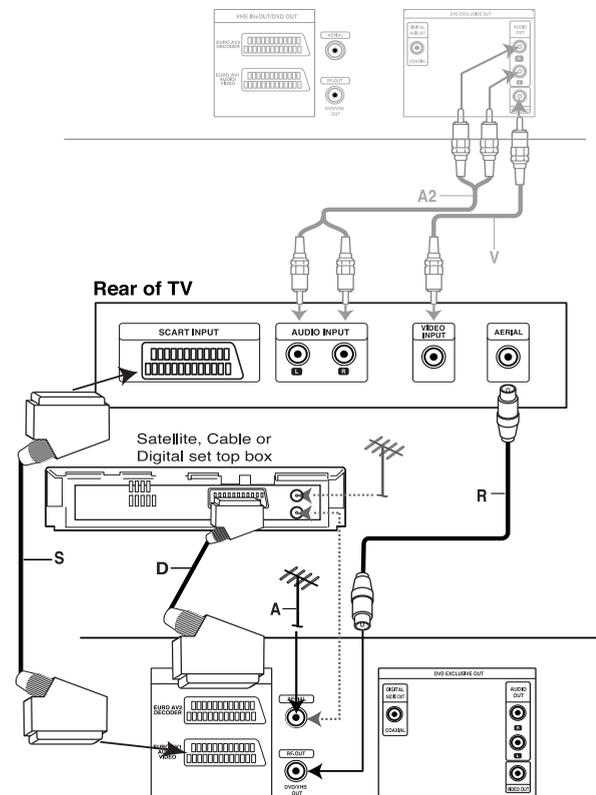
Rear of DVD+VCR (Basic connection)

10

Connections (Cont'd)

Connecting to Optional Equipment

Connecting to an amplifier equipped with two channel analog stereo or Dolby Surround

Connect the Left and Right AUDIO OUT jacks on the DVD+VCR to the audio left and right in jacks on your amplifier, receiver or stereo system, using the supplied audio cables (**A2**).

Connecting to an amplifier equipped with two channel digital stereo (PCM) or to an Audio/Video receiver equipped with a multi-channel decoder (Dolby Digital™, MPEG 2 or DTS)

1 Connect the DVD+VCR's DIGITAL AUDIO OUT jack (COAXIAL **X**) to the corresponding in jack on your amplifier. Use an optional digital (coaxial **X**) audio cable.

2 You will need to activate the DVD+VCR's digital output. (See "Digital Audio Output" on page 19).

Digital Multi-channel sound

A digital multi-channel connection provides the best sound quality. For this you need a multi-channel Audio/Video receiver that supports one or more of the audio formats supported by your DVD+VCR (MPEG 2, Dolby Digital and DTS). Check the receiver manual and the logos on the front of the receiver.

Warning:
Due to the DTS Licensing agreement, the digital output will be in DTS digital out when DTS audio stream is selected.

Rear of DVD+VCR

2 channel analog stereo or Dolby Surround connection.

A2 (DVD exclusive out)

X (Digital multi-channel connection)

AUDIO INPUT   L   R

COAXIAL DIGITAL INPUT
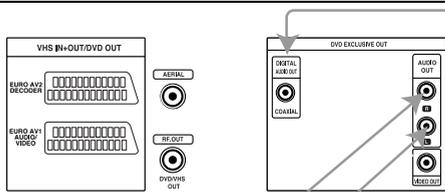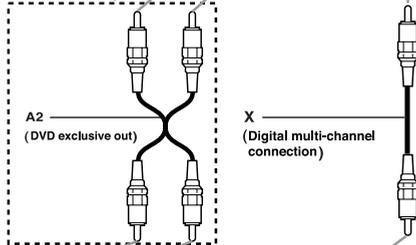
Amplifier (Receiver)

Notes
– If the audio format of the digital output does not match the capabilities of your receiver, the receiver will produce a strong, distorted sound or no sound at all.
– To see the audio format of the current DVD in the On-Screen Display, press **AUDIO**.

Accessory Audio/Video (A/V) Connections to DVD+VCR
Connect the **AV INPUT** jacks on the DVD+VCR to the audio/video out jacks on your accessory component, using the optional audio/video cables.

Accessory Component: VCR, Camcorder, Video Camera, Satellite Receiver, Laser Disc Player

Jack panel of Accessory

AUDIO OUTPUT
R
L
VIDEO OUTPUT

PLAY   STOP   – CHANNEL +   REC   AV INPUT   VIDEO   AUDIO-R   EJECT
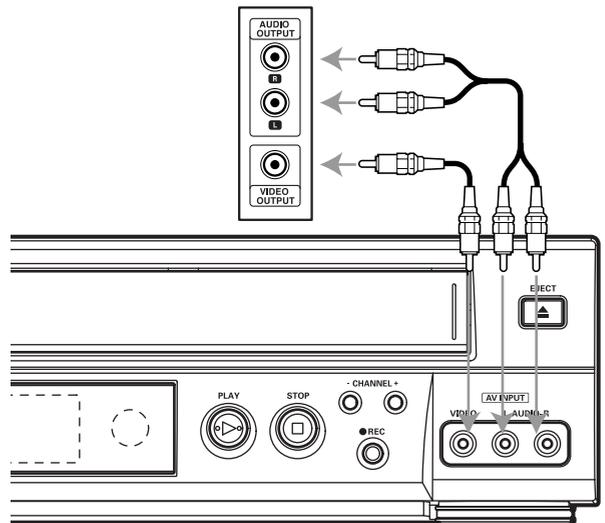
Front of DVD+VCR

Before Operation - VCR part

Video channel Set

Video channel (RF output channel) is the channel on which your TV receives picture and sound signals from the DVD+VCR through the RF aerial cable.

If you have used a **SCART** lead you will not have to tune your TV, simply select the **AV** channel. The **AV** channel is already pre-tuned for optimum video playback on your TV.

Perform the following steps only if interference appears in the TV picture after you have moved to a different area or a new station has started broadcasting in your area, or if you change the connection from RF connection to AV connection, or vise versa.

1 **Turn on DVD+VCR and TV.**

2 **Set the vacant position 22 on your TV.**

3 **Press ⏻/⏽ on the remote control to enter the standby mode (the clock indicator will be dimmed).**

4 **Press and hold CHANNEL + or - on the DVD+VCR for more than 4 secs.**

RF 22 will appear in the DVD+VCR display.

The following picture will be displayed on the TV screen.
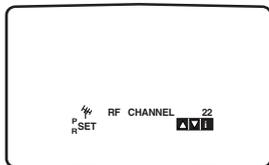
If the picture is snowy, move to step 5.
If the picture is clean, press ⏻/⏽ on the DVD+VCR to store the RF channel. The video channel is now set.

5 **Press CHANNEL + or - on the DVD+VCR to set the video channel to a vacant position between 22 and 68 which is not occupied by any local station in your area.**

Note
The RF channel will not change until step 6 has been executed.

6 **Press ⏻/⏽ to store the new RF channel into the DVD+VCR.**

7 **Press ⏻/⏽ to bring the DVD+VCR from standby to on and follow your TV manufacturers tuning instruction manual to tune a new channel to the DVD+VCR.**

Using your DVD+VCR for the very first time

For the following steps we assume that you have just connected your DVD+VCR for the very first time.
To make tuning TV stations an easy task your DVD+VCR incorporates the **Automatic Channel Memory System (ACMS)**. This system will automatically tune and store TV channels in VIDEO Plus+ System order to your DVD+VCR.
While this is happening the clock (date & time) in the DVD+VCR will be set automatically.

1 **Make sure that you have correctly installed your DVD+VCR.**

2 **Press ⏻/⏽ to turn on your DVD+VCR.**

If the initial Menu Screen doesn't appear on screen, make sure that you have tuned your TV to a video channel. Or if this is correct it may mean that your DVD+VCR is already tuned.
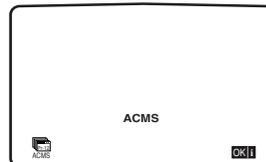
3 **Press OK to start the automatic tuning process.**
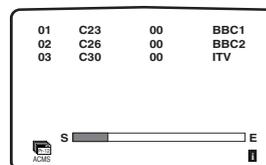
4 **After storing all available TV stations your DVD+VCR will sort them into VIDEO Plus+ System order.**

| TV Station	Programme number
BBC1	PR01
BBC2	PR02
ITV	PR03
CH4 (S4C)	PR04
CH5	PR05
Satellite	PR06

5 **Press i to remove the menus from the TV screen.**

How to use the main menu

This DVD+VCR can easily be programmed by using the menus displayed on screen.
The menus are controlled from the Remote Control Handset.

1 Switch on your TV set and DVD+VCR by pressing ⏻/│.

2 Press i.
The main menu will appear on the TV screen.
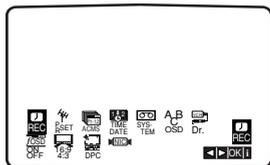
- ● **REC**
  Timer recording setting (see p. 24-25).
- ● **PR SET**
  Manual tuning setting (see p. 14).
- ● **ACMS**
  ACMS (Automatic Channel Memory System) (see right column).
- ● **TIME DATE**
  Date & clock setting (see p. 16).
- ● **SYSTEM**
  To set the Colour TV System (see p. 16).
- ● **ABC OSD**
  To change the language setting for OSD.
  You can select the language from English, Russian, German, French and Polish.
- ● **Dr.**
  To check a problem with your DVD+VCR (see p. 31).
- ● **F.OSD ON/OFF**
  To display the operational mode of your DVD+VCR (see p. 31).
- ● **16:9/4:3**
  To select the aspect ratio of your TV (see p. 32).
- ● **DPC**
  To improve the playback picture (see p. 21).
- ● **NIC**
  To activate or deactivate the NICAM digital sound (see p. 32).

3 Press ◀ and ▶ to select the desired menu.

4 Press OK and press ▲ or ▼ to select.

5 Press i to return to a TV picture.

Tuning in TV Stations Automatically

Should you wish to perform the **Automatic Channel Memory System (ACMS)** again please follow the guidance given on this page. You may tune up to 88 TV stations into your DVD+VCR.
After automatic tuning has taken place please check that TV stations have been placed in Video Plus+ system order otherwise you will be unable to successfully use this excellent feature.

1 Press ⏻/│ to turn on your DVD+VCR.

2 Press i.
The main menu will appear on the TV screen.

3 Press ◀ or ▶ to select ACMS and press OK.
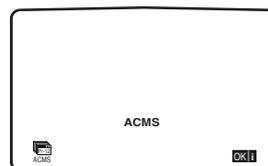
4 Press OK again to start the automatic tuning process.

01	C23	00	BBC1
02	C26	00	BBC2
03	C30	00	ITV
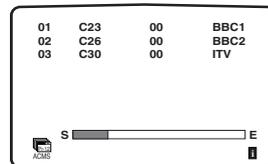
5 After storing all available TV stations your DVD+VCR will sort them into VIDEO Plus+ System order.
While automatic tuning is taking place the time and date will set automatically. If - - : - - appears in the DVD+VCR display it means that the broadcast signal is weak and the clock was not set. Please turn to **CLOCK SET** section of this book on page 16.
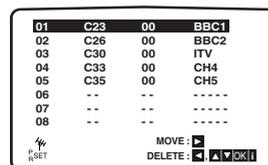
01	C23	00	BBC1
02	C26	00	BBC2
03	C30	00	ITV
04	C33	00	CH4
05	C35	00	CH5
06	- -	- -	- - - - -
07	- -	- -	- - - - -
08	- -	- -	- - - - -

MOVE : ▶
DELETE : ◀, ▲▼ OK i

6 Press i to remove the menus from the TV screen.

## Tuning in TV Stations Manually

In certain areas of the country broadcast signals may be too weak for your DVD+VCR's automatic tuning process to find or assign TV stations correctly.
This is important because you will only be able to successfully record TV programmes using VIDEO Plus+ System if your DVD+VCR has stored them in a set order. You must tune in these weaker broadcast stations manually in order for your DVD+VCR to store them.
Remember for VIDEO Plus+ System to work correctly TV stations must be stored in VIDEO Plus+ System order.

1 **Press i.**
The main menu will appear on the TV screen.

2 **Press ◄ or ► to select PR SET and press OK.**

PR	CH	MFT	STATION
01	C23	00	BBC1
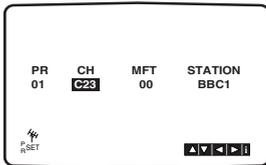
3 **Press i and press ▲ or ▼ to select the programme number that you want to tune (for example, PR 06). Press OK.**

01	C23	00	BBC1
02	C26	00	BBC2
03	C30	00	ITV
04	C33	00	CH4
05	C35	00	CH5
06	--	--	-----
07	--	--	-----
08	--	--	-----

MOVE : ►
DELETE : ◄ , ▲▼OK i

PR	CH	MFT	STATION
06	C--	--	-----
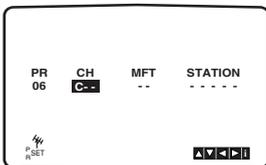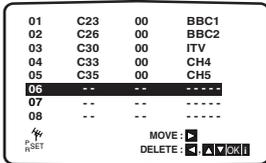
4 **Enter the channel number of station that you want to tune with the numerical buttons.**

PR	CH	MFT	STATION
06	C40	00	

CHANNEL/CABLE : AV
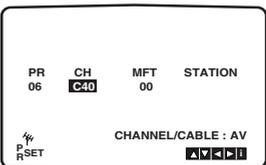
5 **Searching will stop when it locates a station.**
If the station transmits PDC, the station name will be added automatically.

Control the fine tuning of the station by pressing ▲ or ▼.

PR	CH	MFT	STATION
06	C40	00	
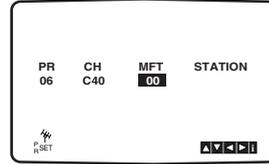
6 **Press ► to select STATION and press OK.**
The TV station name list will appear.

Press ▲ or ▼ to select a station name from the list and press OK to select it.
If your station name isn't on the list do not press **OK**, but go to stage **7**.

PR	CH	MFT	
06	C40	00	►BBC1
			BBC2
			ITV
			ANGLI
			BORDE
			CH TV
			WEST
			GRANA
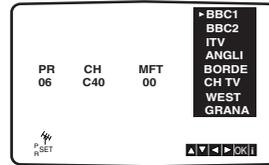
7 **You can change a TV station name manually rather than using the "standard" names. Press ► and press ▲ or ▼ to select letters and numbers for the new station name.**

Press ◄ or ► to move back and forth between characters. Press OK.

PR	CH	MFT	STATION
06	C40	00	CH TV
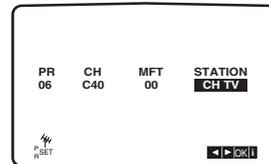
8 **Press i, confirm the station placement.**

01	C23	00	BBC1
02	C26	00	BBC2
03	C30	00	ITV
04	C33	00	CH4
05	C35	00	CH5
06	C40	00	CH TV
07	--	--	-----
08	--	--	-----
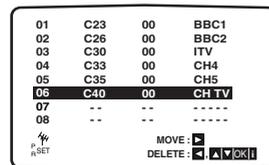
MOVE : ►
DELETE : ◄ , ▲▼OK i

9 **Press i to remove the menus from the TV screen.**

Your new TV station has now been tuned into your DVD+VCR.

If you wish to manually tune other stations repeat stages **1 - 8**.

Before Operation - VCR part

Changing the order of TV Stations

After tuning TV stations into your DVD+VCR you may wish to **change** the order in which they are stored without having to retune them again! The instructions given on this page will show you how you can simply move them into your desired order. **However be warned... if TV stations are not stored in VIDEO Plus+ system order, VIDEO Plus+ system recordings may not take place or record the wrong channel!**

1 **Press i.**
The main menu will appear on the TV screen.

Press ◄ or ► to select PR SET and press OK.

PR	CH	MFT	STATION
01	C23	00	BBC1
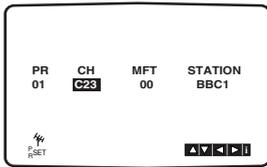
2 **Press i.**
Press ▲ or ▼ to select the programme number you want to move (for example, PR 03).
Press ►.

01	C23	00	BBC1
02	C26	00	BBC2
03	C30	00	ITV
04	C33	00	CH4
05	C35	00	CH5
06	C40	00	CH TV
07	--	--	-----
08	--	--	-----
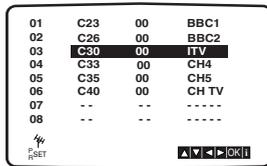
3 **Press ▲ or ▼ to select the programme number you want to move to (for example, PR 05).**

01	C23	00	BBC1
02	C26	00	BBC2
03	C33	00	CH4
04	C35	00	CH5
05	C30	00	ITV
06	C40	00	CH TV
07	--	--	-----
08	--	--	-----
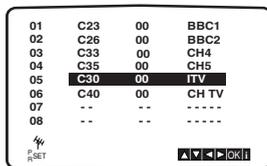
4 **Press OK.**

The selected **programme** will be moved to the **new programme number**.

01	C23	00	BBC1
02	C26	00	BBC2
03	C33	00	CH4
04	C35	00	CH5
05	C30	00	ITV
06	C40	00	CH TV
07	--	--	-----
08	--	--	-----
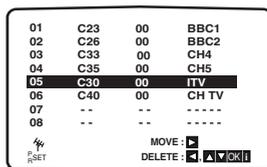
MOVE : ►
DELETE : ◄, ▲ ▼ OK i

5 **Press i to remove the menus from the TV screen.**

If you wish to move other TV stations repeat stages **1 - 4**.

Deleting TV Stations

After tuning TV stations into your DVD+VCR you may wish to **delete** a station.
The instructions given on this page will show you how to easily delete any unwanted TV stations.

1 **Press i.**
The main menu will appear on the TV screen.

Press ◄ or ► to select PR SET and press OK.

PR	CH	MFT	STATION
01	C23	00	BBC1
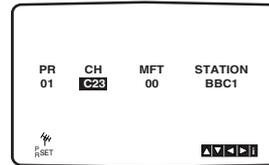
2 **Press i.**
Press ▲ or ▼ to select the programme number you want to delete (for example, PR 03).

01	C23	00	BBC1
02	C26	00	BBC2
03	C30	00	ITV
04	C33	00	CH4
05	C35	00	CH5
06	C40	00	CH TV
07	--	--	-----
08	--	--	-----
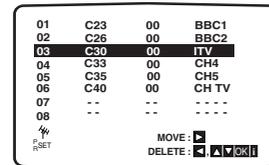
MOVE : ►
DELETE : ◄, ▲ ▼ OK i

3 **Press ◄.**
After a short while, the selected station will be deleted.

01	C23	00	BBC1
02	C26	00	BBC2
03	C33	00	CH4
04	C35	00	CH5
05	C40	00	CH TV
06	--	--	-----
07	--	--	-----
08	--	--	-----
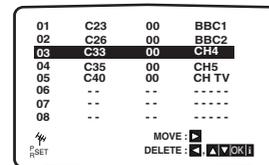
MOVE : ►
DELETE : ◄, ▲ ▼ OK i

4 **Press i to remove the menus from the TV screen.**

If you wish to delete other TV stations repeat stages **1 - 3**.

How to select Stored TV stations:
Stored TV stations can be selected in either of two ways.

Press ▲ or ▼ to select different stations that are tuned into your DVD+VCR.

You may also directly select stations using the **numerical buttons** on the remote control.

Setting the clock Manually

The clock in your DVD+VCR controls time, day and date settings for your DVD+VCR.
For VIDEO Plus+ system to work correctly the correct time and date must be set. The clock is set automatically during **ACMS** (Automatic Channel Memory System) when your DVD+VCR detects a channel that broadcasts a Teletext signal.
If the broadcast signal is weak the clock will not be set and will require setting manually.

1 **Press i.**
Press ◀ or ▶ to select TIME DATE and press OK.

The auto adjust mode can be set to "OFF" by pressing ▲ or ▼ if you want to set the time manually.

```
AUTO   ADJUST : ON
```
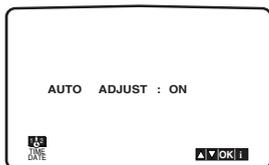
2 **Press OK.**
Use the numerical buttons or press ▲/▼ or ◀/▶ on the remote control to alter the HOURS, MINUTES, DAY, MONTH and YEAR.

Please note your DVD+VCR uses a 24-hour clock. e.g. 1pm will be displayed as 13:00.

The day of the week will appear automatically when you enter the year.

```
HH   MM   DD   MM   YY
-- : -- -- . -- . ---
```
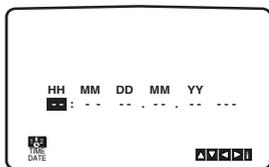
3 **If you make a mistake press ◀ or ▶ and enter the correct details.**

```
HH   MM   DD   MM   YY
11 : 45   15 . 04 . 02   MON
```
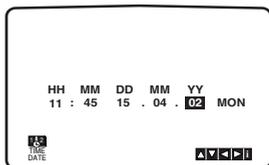
4 **Press i to remove the menus from the TV screen.**

Your new clock settings are stored and will appear on your DVD+VCR's Display.

To set the colour system

Your DVD+VCR is equipped with dual colour standard, you can play back a tape in PAL and MESECAM.
During playback your DVD+VCR detects the colour system automatically.
If there is any colour problem please select the colour system manually.

1 **Press i.**
The main menu will appear on the TV screen.
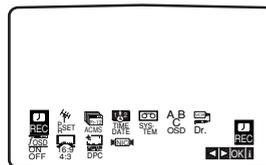
2 **Press ◀ or ▶ to select the SYSTEM.**
Press OK.
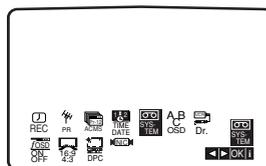
3 **Press ▲ or ▼ to select according to the COLOUR system used.**

```
► AUTO
  PAL
  MESECAM
```
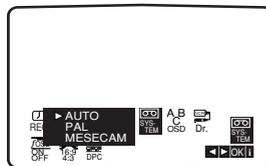
AUTO:
Allows PAL or MESECAM signals to be distinguished automatically.

PAL:
Use when receiving PAL signals or use when playing back a tape recorded in PAL system.

MESECAM:
Use when receiving MESECAM signals or use when playing back a tape recorded in MESECAM system

4 **Press i to remove the menus from the TV screen.**

General Explanation

This manual gives the basic instructions for operating the DVD+VCR. Some DVDs require specific operation or allow only limited operation during playback. When this occurs, the symbol ⊘ appears on the TV screen, indicating that the operation is not permitted by the DVD+VCR or is not available on the disc.

On-Screen Display

The general playback status can be displayed on the TV screen. Some items can be changed on the menu.

On-screen display operation

1 **Press DISPLAY during playback.**

2 **Press ▲/▼ to select an item.**
The selected item will be highlighted.

3 **Press ◀/▶ to change the setting of an item.**
The numerical buttons can be also be used for setting numbers (e.g., title number). For some functions, press SELECT/OK to execute the setting.

Temporary Feedback Field Icons

Icon	Description
TITLE	Repeat Title
CHAPT	Repeat Chapter
TRACK	Repeat Track (non-PBC Video CDs only)
ALL	Repeat All Tracks (non-PBC Video CDs only)
A B	Repeat A-B
OFF	Repeat Off
❚❚■	Resume play from this point
⊘	Action prohibited or not available

𝒩 Notes
- Some discs may not provide all of the below On-Screen Display.
- If no button is pressed for 10 seconds, the On-Screen Display disappears.

PREPARATION

DVD

Items		Function (Press ▲/▼ to select desired item)	Selection Method
Title Number	T 1/3	**Shows the current title number and total number of titles, and** skips to the desired title number.	◀ / ▶, or Numeric, SELECT/OK
Chapter Number	⒞ 1/12	**Shows the current chapter number and total number of chapters, and** skips to the desired chapter number.	◀ / ▶, or Numeric, SELECT/OK
Time search	🕐 0:16:57	**Shows the elapsed playing time, and** searches the point by the elapsed time directly.	Numeric, SELECT/OK
Audio language and Digital Audio Output mode	1 ENG DCD 6 CH	**Shows the current audio soundtrack language, encoding method, and channel number, and** changes the setting.	AUDIO, ◀ / ▶
Subtitle language	⊡ OFF	**Shows the current subtitles language, and** changes the setting.	SUBTITLE, ◀ / ▶
Angle	📹 1/1	**Shows the current angle number and total number of angles, and** changes the angle number.	ANGLE, ◀ / ▶
Sound	🔊 NORM.	**Shows the current sound mode, and** changes the setting.	◀ / ▶

VCD2.0 **VCD1.1**

Items		Function (Press ▲/▼ to select desired item)	Selection Method
Track Number	T 1/4	**Shows the current track number, total number of tracks and PBC On mode, and** skip to the desired track number.	◀ / ▶, or Numeric, SELECT/OK
Time	🕐 0:16:57	**Shows the elapsed playing time (Display only)**	–
Audio Channel	⤵ STER.	**Shows the audio channel, and** changes the audio channel.	AUDIO, ◀ / ▶
Sound	🔊 NORM.	**Shows the current sound mode, and** changes the setting.	◀ / ▶

Initial Settings

You can set your own Personal Preferences on the DVD+VCR.

General Operation

1 Press SETUP.
The setup menu appears.

Disc Audio	✓Original
Disc Subtitle	English
Disc Menu	French
Rating	German
Country code	Spanish
TV Aspect	Italian
Menu Language	Chinese
	Polish
Digital Audio Output	Hungarian
	Russian
Others	Other – – – –

2 Press ▲/▼ to select the desired item.
The screen will show the current setting for the selected item, as well as alternate setting(s).

3 While the desired item is selected, press ▶, then ▲/▼ to select the desired setting.

4 Press SELECT/OK to confirm your selection.
Some items require additional steps.

5 Press SETUP, RETURN or PLAY (▷) to exit the setup menu.

Language

Disc Language DVD

Select a language for the disc's Menu, Audio, and Subtitle.
Original : The original language set for the disc is selected.
Other : To select another language, press numerical buttons to enter the corresponding 4-digit number according to the language code list on page 37. If you enter the wrong language code, press CLEAR.

Disc Audio	▶Original
Disc Subtitle	English
Disc Menu	French
Rating	German
Country code	Spanish
TV Aspect	Italian
Menu Language	Chinese
	Polish
Digital Audio Output	Hungarian
	Russian
Others	Other – – – –

Menu Language

Select a language for the setup menu. This is the menu you see when you press SETUP.

Disc Audio	▶English
Disc Subtitle	Spanish
Disc Menu	French
Rating	German
Country Code	Italian
TV Aspect	
Menu Language	
Digital Audio Output	
Others	

Picture

TV Aspect DVD

4:3 Letterbox: Select when a standard 4:3 TV is connected. Displays theatrical images with masking bars above and below the picture.
4:3 Panscan: Select when a standard 4:3 TV is connected. Displays pictures cropped to fill your TV screen. Both sides of the picture are cut off.
16:9 Wide: Select when a 16:9 wide TV is connected.

Disc Audio	4:3 Letterbox
Disc Subtitle	4:3 Panscan
Disc Menu	▶ 16:9 Wide
Rating	
Country Code	
TV Aspect	
Menu Language	
Digital Audio Output	
Others	
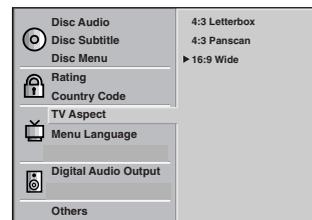
Sound

Digital Audio Output

Each DVD disc has a variety of audio output options. Set the DVD+VCR's Digital Audio Output according to the type of audio system you use.

DOLBY DIGITAL/PCM: Select "DOLBY DIGITAL/PCM" if you connected the DVD+VCR's DIGITAL AUDIO OUT jack to a Dolby Digital decoder (or an amplifier or other equipment with a Dolby Digital decoder).

Stream/PCM: Select "Stream/PCM" if you connected the DVD+VCR's DIGITAL AUDIO OUT jack to an amplifier or other equipment with a DTS decoder, Dolby Digital decoder or MPEG decoder.

PCM: Select when connected to a 2-channel digital stereo amplifier. The DVD+VCR output sounds in the PCM 2ch format when you play a DVD video disc recorded with a Dolby Digital, MPEG1, or MPEG2 recording system.

Disc Audio	► DOLBY DIGITAL /PCM
⊙ Disc Subtitle	Stream/PCM
Disc Menu	PCM
🔒 Rating	
Country Code	Sample Freq.
TV Aspect	✓ 48KHz
📺 Menu Language	96KHz
🔊 Digital Audio Output	
Others	
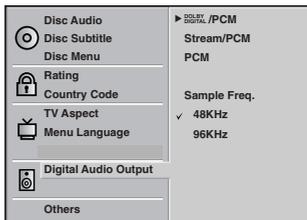
Sample Frequency

To change the Sample Frequency setting, first select the desired Digital Audio Output as indicated as above. If your receiver or amplifier is NOT capable of handling 96KHz signals, select 48KHz. When this choice is made, this unit will automatically convert any 96KHz signals to 48KHz so your system can decode them. If your receiver or amplifier is capable of handling 96KHz signals, select 96KHz. When this choice is made, this unit will pass each type of signal through without any further processing.

Others

The DRC, Vocal and PBC settings can be changed.
● Press ▲/▼ to select the desired item and press SELECT/OK. The setting of the selected item is changed between On and Off.

Disc Audio	►DRC Off
⊙ Disc Subtitle	Vocal On
Disc Menu	PBC On
🔒 Rating	
Country Code	
TV Aspect	
📺 Menu Language	
🔊 Digital Audio Output	
Others	
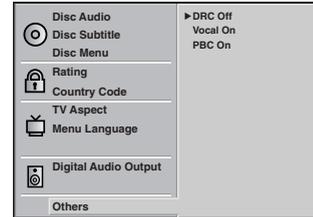
Dynamic Range Control (DRC)

With the DVD format, you can hear a programme's soundtrack in the most accurate and realistic presentation possible, thanks to digital audio technology. However, you may wish to compress the dynamic range of the audio output (the difference between the loudest sounds and the quietest ones). Then, you may listen to a movie at a lower volume without losing clarity of sound. Set DRC to On for this effect.

Vocal

Set Vocal to On only when a multi-channel karaoke DVD is playing. The karaoke channels on the disc will mix into a normal stereo sound.

PBC

Set Playback Control (PBC) to On or Off.
On: Video CDs with PBC are played according to the PBC.
Off: Video CDs with PBC are played the same way as Audio CDs.

PREPARATION

Parental Control

Rating DVD

Movies on DVDs may contain scenes not suitable for children. Therefore, discs may contain Parental Control information that applies to the complete disc or to certain scenes on the disc. These scenes are rated from 1 to 8, and alternatively, more suitable scenes are available for selection on some discs. Ratings are country-dependent. The Parental Control feature allows you to prevent discs from being played by your children or to have certain discs played with alternative scenes.

```
┌──────────────────────────────────┐
│ ⊙ Disc Audio          8          │
│   Disc Subtitle       7          │
│   Disc Menu           6          │
│ 🔒 Rating             5          │
│   Country Code        4          │
│   TV Aspect           3          │
│ 📺 Menu Language      2          │
│                       1          │
│ 🔊 Digital Audio Output ▶Unlock  │
│                        Change     │
│   Others                          │
└──────────────────────────────────┘
```
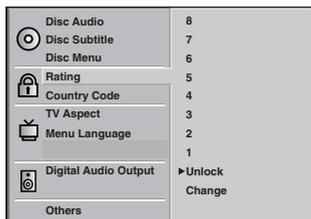
1 Select "Rating" on the Setup menu using ▲/▼.

2 While "Rating" is selected, press ▶.

3 **When you have not entered a password yet.**
Enter a 4-digit password using the numerical buttons to create a personal 4-digit security password, then press SELECT/OK. Enter the 4-digit password again and press SELECT/OK to verify.
When you have already entered a password;
Enter a 4-digit password using the numbered buttons to confirm the personal 4-digit security password, then press SELECT/OK.

If you make a mistake before pressing SELECT/OK, press CLEAR and enter 4-digit security password again.

4 **Select a rating from 1 to 8 using ▲/▼. One (1) has the least playback restrictions. Eight (8) has the most playback restrictions.**
Unlock: If you select Unlock, Parental Control is not active. The disc will play in full.
Ratings 1 to 8: Some discs contain scenes not suitable for children. If you set a rating for the DVD+VCR, all disc scenes with the same rating or lower will be played. Higher rated scenes will not be played unless an alternative scene is available on the disc. The alternative must have the same rating or a lower one. If no suitable alternative is found, playback will stop. You must enter the 4-digit password or change the rating level in order to play the disc.

5 Press SELECT/OK to confirm your rating selection, then press SETUP to exit the menu.

Country Code DVD

Enter the code of a country/area whose standards were used to rate the DVD video disc, referring to the list (See "Country Code List", page 38).

```
┌──────────────────────────────────┐
│ ⊙ Disc Audio       Code Set      │
│   Disc Subtitle     U K          │
│   Disc Menu                       │
│ 🔒 Rating                         │
│   Country Code                    │
│   TV Aspect                       │
│ 📺 Menu Language                  │
│                                   │
│ 🔊 Digital Audio Output           │
│                                   │
│   Others                          │
└──────────────────────────────────┘
```

1 Select Country Code using ▲/▼ on the setup menu.

2 While Country Code is selected, press ▶.

3 Follow step 3 of "Rating" on left.

4 Select the first character using ▲/▼.

5 Shift the cursor using ◄/► and select the second character using ▲/▼.

6 Press SELECT/OK to confirm your country code selection, then press SETUP to exit the menu.

📝 Note
Confirmation of the 4-digit password is necessary when the code is changed (see "Changing the 4-digit code" below).

Changing the 4-digit code

1 Follow Steps 1-2 as shown above to the left (Rating).
2 Enter the old code, then press SELECT/OK.
3 Select Change using the ▲/▼ buttons then press SELECT/OK.
4 Enter the new 4-digit code, then press SELECT/OK.
5 Enter exactly the same code a second time and verify by pressing SELECT/OK.
6 Press SETUP to exit the menu.

If you forget your 4-digit code

If you forget your password, to clear the current password, follow the procedure below.

1 Press SETUP to display the setup menu.
2 Use the Number buttons to enter the 6-digit number "210499".
The 4-digit password is cleared.
3 Enter a new code as shown above to the left (Rating).

Operation with tape

Playing a tape

You will only be able to load and eject video cassettes when your DVD+VCR is plugged into the mains.
Your DVD+VCR may also play back recordings from NTSC tapes (on PAL TV).

Getting a better picture
When a cassette is inserted and playback started, the automatic tracking function works to get the best possible picture automatically. If the quality of the recording is poor, repeatedly press either **CH/TRK (▲/▼)** on the remote control or **CHANNEL (+/-)** on the front panel to manually adjust the tracking until any distortions have been removed. Press numbered button **0** on the remote control to switch automatic tracking back on again.

1 **Make sure that you have correctly connected your DVD+VCR as described earlier in this book.**
Turn on your TV.
Press ⏻/I to turn on your DVD+VCR.
Insert the video cassette into your DVD+VCR.
The video cassette should have the window side facing up and the arrow facing away from you.

2 **Press PLAY (▷) to start playing your tape.**
If you load a video cassette which has had its record protection tab removed, playback of the cassette will start automatically.

AUTO TRACKING
Your DVD+VCR will automatically adjust the tracking to give the best picture quality.

3 **Press PAUSE/STEP (❚❚) to still a picture.**
Press PAUSE/STEP (❚❚) repeatedly to advance the tape frame by frame.
If you hold down **FORWARD**, the picture will be slowed down at about 1/19 times the normal playback.
Tapes can be paused for up to 5 minutes. After 5 minutes your DVD+VCR will stop the tape to prevent damage to the tape or your DVD+VCR .
Still picture quality can be improved slightly by pressing **CH/TRK (▲/▼)** on the remote control.

4 **Press PLAY (▷) to continue playing your tape.**

Picture search:
During playback press either **FORWARD** or **BACKWARD**. This will enable you to rapidly wind the tape (7 times normal playback) while seeing where you are on the tape.

Logic search:
During fast forward or rewind press and hold **FORWARD** or **BACKWARD**. The picture will be played back at 7 times normal playback speed.

5 **During playback or still picture press ◀ or ▶. You can reach the following playback speeds.**
(-7xplay, -3xplay, -play, still, 1/19 slow, play, 2xplay, 7xplay)
To switch off the slow motion and shuttle, press the desired function.
During slow motion and shuttle, the noise bars may appear on the picture according to the status of tape.
If distortions can be seen in the picture, reduce them with **CH/TRK (▲/▼)** on the remote control.

6 **Press STOP (■) to end playback.**
Press EJECT.
If the end of the tape is reached, your DVD+VCR will stop playback automatically, rewind, stop, eject the tape.

CM (Commercial Message) CUT:

When playing back tapes, this feature lets you skip through commercial breaks by fast-forwarding, and then resume normal playback.
While tape is playing press **CM-CUT** on the remote control to skip commercial (or other programme material).
Repeatedly press **CM-CUT** to skip:
The tape will fast forward picture search through 30 seconds of recording.

1 Press	30 seconds
2 Presses	60 seconds
3 Presses	90 seconds
4 Presses	120 seconds
5 Presses	150 seconds
6 Presses	180 seconds

DPC (Digital Picture Control):

This feature automatically improves playback picture quality by adjusting your DVD+VCR to the condition of the tape.

1 **Press i.**

2 **Press ◀ or ▶ to select DPC and press OK.**
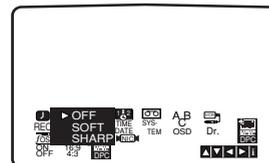
3 **Press ▲ or ▼ repeatedly to select: OFF, SOFT or SHARP.**
Please note you may set DPC only when playing a tape.

4 **Press i to remove the menus from the TV screen.**

Operation with tape

The DVD+VCR allows you to make recordings using a variety of simple methods:

Quick Set Recording (QSR): Start recording immediately for a set period of time or until the video cassette runs out.

VIDEO Plus+ System Recording greatly simplifies entering the date, channel, start and end times of a Timer Recording.

Timer Recording: You may record at a later time (up to 1 month from the present). Up to 7 of these automatic recordings may be set.

The DVD+VCR incorporates Long Play (LP) which enables you to record up to twice the amount of time on a video cassette. For example an E-180 will record up to 180 minutes using Standard Play (SP); using LP you will be able to record up to 360 minutes. Please note there will be a slight loss in picture and sound quality when using LP.

Quick Set Recording (QSR)

1 **Make sure that you have correctly connected your DVD+VCR as described earlier in this book.**
Press ⏻/� to turn on your DVD+VCR.

2 **Insert a video cassette with protection tab into your DVD+VCR.**
The video cassette should have the window side facing up and the arrow facing away from you.

3 **Press CH/TRK (▲/▼) to select the programme number you wish to record.**
You may also directly select programme numbers using the **numerical buttons** on the remote control.

4 **If you wish to record directly from either of the SCART sockets or AV INPUT sockets, repeatedly press AV until the socket you wish to record from is displayed.**

AV 1 for recording from EURO AV1 socket on the rear of your DVD+VCR.
AV 2 for recording from EURO AV2 socket on the rear of your DVD+VCR.
AV 3 for recording from AV INPUT sockets on the front of your DVD+VCR.

5 **Press SP/LP if you wish to record in Long Play or Standard Play.**
SP will produce improved picture and sound quality, however LP will provide twice as much recording time as SP.

6 **Press REC (●) to start recording.**
RECORD will appear on the TV screen.
Press **REC** several times. Each successive press will increase the record time by 30 minutes until you reach a maximum of 9 hours.

7 **Press PAUSE/STEP (❙❙) to avoid recording unwanted scenes.**
Press **PAUSE/STEP (❙❙)** to continue recording. Tapes can be paused for up to 5 minutes; RECP will be displayed when a tape is paused. After 5 minutes your DVD+VCR will stop recording to prevent damaging the tape or your DVD+VCR.

8 **Press STOP (■) to end recording.**
Press EJECT (⏏).
EJECT will appear on the TV screen for a few seconds.

𝒩 Notes
- If you do not wish to record on a tape (this can happen quite easily by accident!) remove the protection tab on the back edge of the video cassette.
- It is possible to record on a video cassette with the record protection tab removed by covering the hole with self adhesive tape.
- Remember you can record one programme while watching another by starting your instant recording, pressing **TV/VCR** to select TV mode and then selecting a different channel on your TV.
- If you press **PAUSE/STEP (❙❙)** during QSR, the DVD+VCR will enter the record pause mode and QSR is cancelled.

VIDEO Plus+® System recording

VIDEO Plus+ System greatly simplifies entering the date, channel, start and end times of a Timer recording by simply entering a PlusCode programming number. The PlusCode programming number is published in most TV guide magazines; they can vary from one to nine numbers in length.

PLEASE NOTE! VIDEO Plus+ System can only work successfully if TV channels have been tuned and stored in the order described on page 12 of this instruction manual.

1 **Make sure that TV channels have been tuned and stored.**
Insert a video cassette with protection tab into your DVD+VCR.
The video cassette should have the window side facing up and the arrow facing away from you.

2 **Press VIDEO Plus+.**

```
                    -------- ■
 REC  ONCE
      VIDEO PLUS+        0~9, ◄|▲|▼|OK|i
```
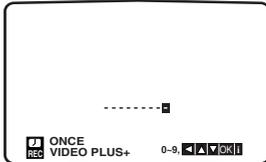
3 **Press ▲ or ▼ to select the recording type.**
ONCE: To record once.
WEEKLY: To record at the same time every week.
DAILY: To record every day (except Saturday and Sunday) at the same time.

```
                    -------- ■
 REC  DAILY
      VIDEO PLUS+        0~9, ◄|▲|▼|OK|i
```
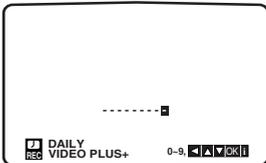
4 **Press the numerical buttons to enter the PlusCode programming number of the TV programme that you wish to record.**

If you make a mistake press ◄ then enter the revised number.

```
                  123456789
 REC  DAILY
      VIDEO PLUS+        0~9, ◄|▲|▼|OK|i
```
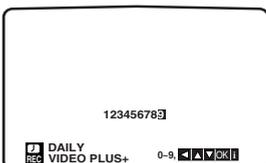
5 **Press OK.**
The recording details of your programme will be displayed.
If **PLEASE CHECK** is displayed it means that you have entered the wrong PlusCode programming number, entered the PlusCode programming number incorrectly or the PlusCode programming number has been printed incorrectly in the TV guide. If "- -" is displayed in "PR", you have to enter the programme number of the station you want to record from.

```
 PR    DATE   T I M E
 BBC1   12    10:11~11:55    SP
 --     --    --:--~--:--    SP
 --     --    --:--~--:--    SP
 --     --    --:--~--:--    SP
 --     --    --:--~--:--    SP
 --     --    --:--~--:--    SP
 --     --    --:--~--:--    SP

 ♪                    ▲▼◄►i
```
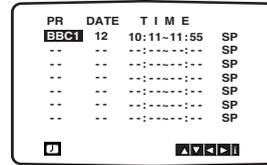
6 **If you want to record from either of the SCART sockets or AV INPUT on the front, repeatedly press AV for the correct display (AV1, AV2 or AV3).**

7 **Press ► and press ▲ or ▼ to switch PDC on or off.**
If you are recording from stations that do not broadcast PDC switch PDC off! (* symbol will disappear on the TV screen). Remember only certain stations transmit PDC.

```
 PR    DATE   T I M E
 BBC1   12    10:11~11:55 ■ SP
 --     --    --:--~--:--    SP
 --     --    --:--~--:--    SP
 --     --    --:--~--:--    SP
 --     --    --:--~--:--    SP
 --     --    --:--~--:--    SP
 --     --    --:--~--:--    SP
 VPS/PDC : ON
 ♪                    ▲▼◄►i
```
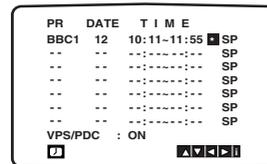
8 **Press ► to select the recording speed and press ▲ or ▼ if you wish to record in SP, IP or LP.**
SP will produce improved picture and sound quality, however LP will provide twice as much recording time as SP.
Check that the timer event details are correct.
Press **i** to save your settings.

```
 PR    DATE   T I M E
 BBC1   12    10:11~11:55    SP
 --     --    --:--~--:--    SP
 --     --    --:--~--:--    SP
 --     --    --:--~--:--    SP
 --     --    --:--~--:--    SP
 --     --    --:--~--:--    SP
 --     --    --:--~--:--    SP

 ♪                    ▲▼◄►i
```
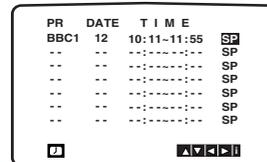
If **PLEASE CHECK** is displayed, you have entered incorrect information and will need to re-enter the data.

9 **Press i to remove the menus.**
If you want to make other VIDEO Plus+ system recordings repeat stages **2 - 8**.

10 **Press ⏻/| to switch your unit Standby.**
TIMER will appear in the DVD+VCR's display while your DVD+VCR waits to make the recording.
If you want to watch a DVD during timer recording, press TV/VCR on the remote control to select VCR mode.

Intelligent LP Recording

When you set the tape speed to "IP", the DVD+VCR automatically switches to LP mode to allow complete recording if there is not enough tape to record the entire programme while timer- recording in SP mode.
It is not possible to set the tape speed to "IP" with "VPS/PDC" set to "ON".

Timer recording using On Screen

Display

If you choose not to use **VIDEO Plus+ System Recording**, you can set timer recordings manually.
You may set up to seven timer record events within one month of the current date.
PLEASE NOTE! before setting the timer make sure that you have set the DVD+VCR clock correctly and you know which channels you have tuned to TV stations on your DVD+VCR.
In a stage 4, if you want to record from either of the SCART sockets or AV INPUT on the front, press **AV**.

1 **Insert a video cassette with protection tab into your DVD+VCR.**
The video cassette should have the window side facing up and the arrow facing away from you.

2 **Press i.**
Press ◄ or ► to select REC and press OK.
If all timer record events are full press ▲ or ▼ to select the event that you wish to remove and replace.
Press ◄ to delete the event.

```
PR    DATE   T I M E
- -    - -   - - : - - - - - : - -   SP
- -    - -   - - : - - - - - : - -   SP
- -    - -   - - : - - - - - : - -   SP
- -    - -   - - : - - - - - : - -   SP
- -    - -   - - : - - - - - : - -   SP
- -    - -   - - : - - - - - : - -   SP
- -    - -   - - : - - - - - : - -   SP
♫           DELETE: ◄, ▲▼ OK i
```
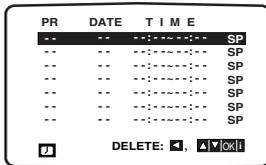
3 **Press OK to start setting the timer record event.**

```
PR    DATE   T I M E
- -    - -   - - : - - - - - : - -   SP
- -    - -   - - : - - - - - : - -   SP
- -    - -   - - : - - - - - : - -   SP
- -    - -   - - : - - - - - : - -   SP
- -    - -   - - : - - - - - : - -   SP
- -    - -   - - : - - - - - : - -   SP
- -    - -   - - : - - - - - : - -   SP
♫                  ▲▼◄►i
```
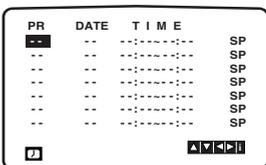
4 **Press the numerical buttons to enter the station that you wish to record.**

When selecting stations 1 - 9, press 0 first, then the channel number; for example Stations 3 - 03. You may also select Channels by pressing ▲ or ▼. Once selected press ►.
If you want to record from either of the SCART sockets or AV INPUT on the front, repeatedly press **AV** for the correct display (AV1, AV2 or AV3).

```
PR    DATE   T I M E
CH4    - -   - - : - - - - - : - -   SP
- -    - -   - - : - - - - - : - -   SP
- -    - -   - - : - - - - - : - -   SP
- -    - -   - - : - - - - - : - -   SP
- -    - -   - - : - - - - - : - -   SP
- -    - -   - - : - - - - - : - -   SP
- -    - -   - - : - - - - - : - -   SP
♫                  ▲▼◄►i
```
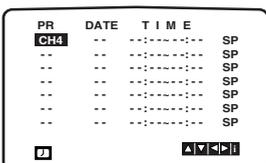
5 **Press the numerical buttons to enter the date of the programme**.

If you press **OK** before entering the date you may select one of the following automated recording features. Press ◄ or ► to select, then press **OK** to confirm.

DLY To record every day (except Saturday and Sunday) at the same time.
Weekly To record at the same time every week.

```
PR    DATE   T I M E
CH4    - -   - - : - - - - - : - -   SP
- -    - -   - - : - - - - - : - -   SP
- -    - -   - - : - - - - - : - -   SP
- -    - -   - - : - - - - - : - -   SP
- -    - -   - - : - - - - - : - -   SP
- -    - -   - - : - - - - - : - -   SP
- -    - -   - - : - - - - - : - -   SP
DLY SU MO TU WE TH FR SA
♫                  ◄►OK i
```
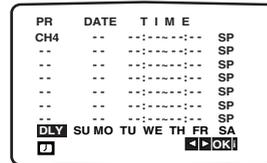
6 **Press the numerical buttons to enter the recording start and end times of the programme that you wish to record.**

Please note your DVD+VCR uses a 24-hour clock.
e.g. 1pm will be displayed as 13:00.
You may also select the start and end times by pressing ▲ or ▼.
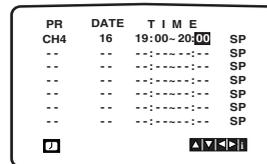
```
PR    DATE   T I M E
CH4    16    19:00~ 20:00   SP
- -    - -   - - : - - - - - : - -   SP
- -    - -   - - : - - - - - : - -   SP
- -    - -   - - : - - - - - : - -   SP
- -    - -   - - : - - - - - : - -   SP
- -    - -   - - : - - - - - : - -   SP
- -    - -   - - : - - - - - : - -   SP
♫                  ▲▼◄►i
```

7 **Press ► and press ▲ or ▼ to switch PDC on or off.**

If you are recording from stations that do not broadcast PDC switch PDC off! (* symbol will disappear on the TV screen). Remember only certain stations transmit PDC.

8 **Press ► to select the recording speed and press ▲ or ▼ if you wish to record in SP, IP or LP.**
• IP (Intelligent LP recording) on page 23.

Check that the timer event details are correct.
Press **i** to save your settings.

```
PR    DATE   T I M E
CH4    16    19:00~20:00   SP
- -    - -   - - : - - - - - : - -   SP
- -    - -   - - : - - - - - : - -   SP
- -    - -   - - : - - - - - : - -   SP
- -    - -   - - : - - - - - : - -   SP
- -    - -   - - : - - - - - : - -   SP
- -    - -   - - : - - - - - : - -   SP
♫                  ▲▼◄►i
```
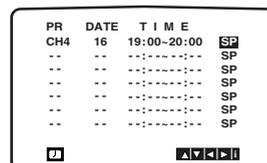
If **PLEASE CHECK** is displayed, you have entered incorrectly and will need to re-enter the data.

9 **Press i to remove the menus.**
If you want to make other timer recordings repeat stages **2 - 8**.

10 **Press ⏻/I to switch your DVD+VCR Standby.**
TIMER will appear in the DVD+VCR's display while your DVD+VCR waits to make the recording.

Operation with tape

If Timer record events Overlap...

Do not overlap programmes, since overlapping portions of the conflicting programmes will not be recorded. Earlier recording times have priority over later recording times as shown in the diagram.

Example:
Programme 1 will be recorded in its entirety, but only the last 30 minutes of Programme 2 will be recorded.

(This portion will not be recorded.)
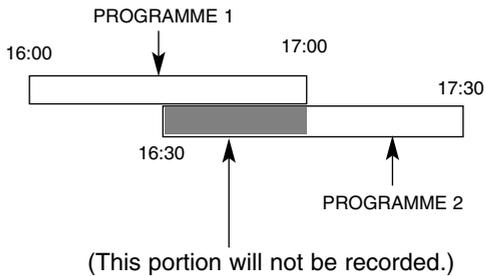
If two programmed timer recordings overlap at midnight 00:00 a.m., programme 2 will not be recorded.

Change (Deleting) the Timer Programme

If at a later date you wish to **delete** or **change** any of the settings in timer event memory you may do so without having to enter all the timer event information again. Simply display the timer event screen. Press ▲ or ▼ to select the event that you wish to **delete** or **change**.
Press ◄ to delete the event...or
Press **OK** to change; then press ◄ or ► to select; Station, Date, Start and End times, PDC and LP. Press ▲ or ▼ to enter the correct information.

The Programme Delivery Control (PDC)

The Programme Delivery Control **(PDC)** adjusts the start and end times of a timer record event. This can be particularly useful with sports events which may run over into extra time. The PDC signal is transmitted by the broadcaster and this controls your video recorder's timer.
Currently only a limited number of TV companies transmit PDC signals.

Please make sure that when recording from channels that do not broadcast PDC that you turn PDC OFF.

Playing DVD and Video CD

T Playback Setup DVD VCD2.0 VCD1.1

- Turn on the TV and select the video input source connected to the DVD+VCR.
- Audio system: Turn on the audio system and select the input source connected to the DVD+VCR.

1 Press OPEN/CLOSE (⏏) to open the disc tray.

2 Load your chosen disc in the tray, with the label facing up.
When a double-sided DVD is inserted, make sure the side you want to play is facing up.

3 Press OPEN/CLOSE (⏏) to close the tray.
READING appears on the TV screen, and playback starts automatically. If playback does not start, press PLAY (▷).
In some cases, the disc menu might appear instead.

T If a menu screen is displayed

The menu screen may be displayed first after loading a DVD or Video CD which contains a menu.

DVD

Use the ◀/▶/▲/▼ to select the title/chapter you want to view, then press SELECT/OK to start playback.
Press TITLE or DISC MENU to return to the menu screen.

VCD2.0

- Use the numerical buttons to select the track you want to view.
  Press RETURN to return to the menu screen.
- Menu settings and the exact operating procedures for using the menu may differ depending on the disc. Follow the instructions on each menu screen.
  You also may set PBC to Off under setup. See page 19.

N Notes

– If Parental Control is set and the disc is not within the Rating settings (not authorized), the 4-digit code must be entered and/or the disc must be authorized (see "Parental Control", on page 20).
– DVDs may have a region code.
– Your player will not play discs that have a region code different from your player. The region code for this player is 2 (two).

General Features

N Note

Unless stated otherwise, all operations described use the remote control. Some features may also be available on the Setup menu.

Moving to another TITLE DVD T 1/3

When a disc has more than one title, you can move to another title as follows:
- Press DISPLAY when playback is stopped, then press the appropriate numerical buttons (0-9) to select a title number.

Moving to another CHAPTER/TRACK

DVD VCD1.1 C 1/12 T 1/3

When a title on a disc has more than one chapter or a disc has more than one track, you can move to another chapter/track as follows:
- Press BACKWARD (◀◀) or FORWARD (▶▶) briefly during playback to select the next chapter/track or to return to the beginning of the current chapter/track.
- Press BACKWARD (◀◀) twice briefly to step back to the previous chapter/track.
- To go directly to any chapter during DVD playback, press DISPLAY. Then, press ▲/▼ to select C (chapter) (or for a Video CD, select T for track). Then, enter the chapter/track number using the numerical buttons (0-9).

N Note

For two-digit numbers, press the buttons in rapid succession.

Slow Motion DVD VCD2.0 VCD1.1

1 Press PAUSE/STEP (❙❙) during playback.
The DVD+VCR will now go into PAUSE mode.
2 Press BACKWARD (◀◀) or FORWARD (▶▶) during pause mode.
The DVD+VCR will enter SLOW mode.
3 Use BACKWARD (◀◀) or FORWARD (▶▶) to select the required speed: ◀❙ 1/16, ◀❙ 1/8, ◀❙ 1/4 or ◀❙ 1/2 (backward), or ❙▶ 1/16, ❙▶ 1/8, ❙▶ 1/4 or ❙▶ 1/2 (forward).
4 To return to playback, press PLAY (▷).

N Note

Slow motion playback in reverse is not applicable for Video CD.

General Features (continued)

Still Picture and Frame-by-frame playback

DVD **VCD2.0** **VCD1.1**

1 Press PAUSE/STEP (❙❙) during playback.
The DVD+VCR will now go into PAUSE mode.
2 With a DVD, you can advance the picture frame by frame by pressing PAUSE/STEP (❙❙) repeatedly on the remote control.
3 To return to playback, press PLAY (▷).

Search **DVD** **VCD2.0** **VCD1.1**

1 Press and hold BACKWARD (❙◄◄) or FORWARD (►►❙) for about two seconds during playback.
The player will now go into SEARCH mode.
2 Press and hold BACKWARD (❙◄◄) or FORWARD (►►❙) repeatedly to select the required speed: ◄◄X2, ◄◄X4, ◄◄X16, ◄◄X100 (backward) or ►►X2, ►►X4, ►►X16, ►►X100 (forward).
With a Video CD, the Search speed changes: ◄◄X2, ◄◄X4, ◄◄X8 (backward) or ►►X2, ►►X4, ►►X8 (forward).
3 To exit SEARCH mode, press PLAY (▷).

Random **Karaoke DVD** **VCD1.1**

1 Press RANDOM during playback or in stop mode.
The unit automatically begins Random Playback and "RANDOM" appears on the TV screen.
2 To return to normal playback, press RANDOM until "NORMAL" appears on the TV screen.

𝒯 **Tips**

By pressing BACKWARD (❙◄◄) or FORWARD (►►❙) during Random playback, the unit selects another title (track) and resumes Random playback.

𝒩 **Note**

This function only works with DVD Karaoke discs and video CD without PBC.

Repeat **DVD** **VCD2.0** **VCD1.1**

| 𝔇 CHAPT | 𝔇 TITLE | 𝔇 TRACK | 𝔇 ALL | 𝔇 OFF |

DVD Video Discs - Repeat Chapter/Title/Off

1 To repeat the chapter currently playing, press REPEAT.
The Repeat Chapter icon appears on the TV screen.
2 To repeat the title currently playing, press REPEAT a second time.
The Repeat Title icon appears on the TV screen.
3 To exit Repeat mode, press REPEAT a third time.
The Repeat Off icon appears on the TV screen.

Video CDs - Repeat Track/All/Off

1 To repeat the track currently playing, press REPEAT.
The Repeat Track icon appears on the TV screen.
2 To repeat the disc currently playing, press REPEAT a second time.
The Repeat All icon appears on the TV screen.
3 To exit Repeat mode, press REPEAT a third time.
The Repeat Off icon appears on the TV screen.

𝒩 **Note**

On a Video CD with PBC, you must set PBC to Off on the setup menu to use the Repeat function. See page 19.

Repeat A-B **DVD** **VCD2.0** **VCD1.1**

| 𝔇 A * | 𝔇 A B | 𝔇 OFF |

To repeat a sequence in a title:

1 Press A-B at your chosen starting point.
A * appears briefly on the TV screen.
2 Press A-B again at your chosen end point.
A-B appears briefly on the TV screen, and the repeat sequence begins (A-B appears in the display window).
3 To cancel the sequence, press A-B.

Time Search **DVD** ⏲ 0:16:57 ⏲ -:--:--

The Time Search function allows you to start playing at any chosen time on the disc.

1 Press DISPLAY during playback. The on-screen display appears on the screen.
The Time Search box shows the elapsed playing time of the current disc.
2 Within 10 seconds, press ▲/▼ to select the Time Search icon in the on-screen display.
The "-:--:--" appears in the Time Search box.
3 Within 10 seconds, use the number buttons to enter the required start time. Enter hours, minutes, and seconds from left to right in the box.
If you enter the wrong numbers, press CLEAR to remove the numbers you entered. Then enter the correct numbers.
4 Within 10 seconds, press SELECT/OK to start playing at the start time.
Playback starts from the selected time on the disc. If you enter an invalid time, playback will continue from the current point.

3D Surround **DVD** 🔊 NORM. 🔊 3D SUR

This unit can produce a 3D Surround effect, which simulates multi-channel audio playback from two conventional stereo speakers, instead of the five or more speakers normally required to listen to multichannel audio from a home theater system.

1 Press DISPLAY during playback.
2 Use ▲/▼ to select the sound option (🔊 NORM.).
The sound option will be highlighted.
3 Use ◄/► to to select "3D SUR".
To turn off the 3D Surround effect, select "NORM".

General Features (continued)

Zoom `DVD` `VCD2.0` `VCD1.1`

The Zoom function allows you to enlarge the video image and to move through the enlarged image.

1 Press ZOOM during playback or still playback to activate the Zoom function.
If you press ZOOM repeatedly, the magnification level increases up to six times.

2 Use the ◄/►/▲/▼ to move through the zoomed picture.

3 Press CLEAR to resume normal playback or return to the paused image.

N Notes

- The zoom function may not work for some DVDs.
- The zoom function may not work on multi-angle scenes.

Marker Search `DVD` `VCD2.0` `VCD1.1`

You can start playback from a memorized point. Up to nine points can be memorized.
To enter a mark, follow these steps.

1 During disc playback, press MARKER when playback reaches the spot that you want to memorize.
The Marker icon will appear on the TV screen briefly.

2 Repeat step 1 to enter up to nine Marker points on a disc.

To Recall a Marked Scene

1 During disc playback, press SEARCH.
The MARKER SEARCH menu will appear on the screen.

2 Within 10 seconds, press ◄/► to select a Marker number that you want to recall.

3 Press SELECT/OK.
Playback will start from the Marked scene.

4 To remove the MARKER SEARCH menu, press SEARCH.

To clear a Marked Scene

1 During disc playback, press SEARCH.
The MARKER SEARCH menu will appear on the screen.

2 Press ◄/► to select the Marker number that you want to erase.

3 Press CLEAR.
The Marker number will be erased from the list.

4 Repeat steps 2 and 3 to erase additional Marker numbers.

5 To remove the MARKER SEARCH menu, press SEARCH.

Special DVD Features `DVD`

Checking the contents of DVD Video discs: Menus

DVDs may contain menus that allow you to access special features. To use the disc menu, press DISC MENU. Then, press the appropriate number button to select an option. Or, use the ◄/►/▲/▼ to highlight your selection, then press SELECT/OK.

Title Menu `DVD`

1 Press TITLE.
If the current title has a menu, the menu will appear on the screen. Otherwise, the disc menu may appear.

2 The menu can list camera angles, spoken language and subtitle options, and chapters for the title.

3 To remove the title menu, press TITLE again.

Disc Menu `DVD`

1 Press DISC MENU.
The disc menu is displayed.

2 To remove the disc menu, press DISC MENU again.

Camera Angle `DVD`

If the disc contains scenes recorded at different camera angles, you can change to a different camera angle during playback.

- Press ANGLE repeatedly during playback to select a desired angle.
The number of the current angle appears on the display.

Changing the Audio Language `DVD`

Press AUDIO repeatedly during playback to hear a different audio language or audio track.

Subtitles `DVD`

Press SUBTITLE repeatedly during playback to see the different subtitle languages.

N Note

If ◌ appears, the feature is not available on the disc.

Playing Audio CD and MP3 discs

The DVD+VCR can play MP3 formatted recordings on CD-R or CD-RW discs.
Before playing MP3 recordings, read the notes on MP3 Recordings on page 33.

1 **Insert a disc and close the tray.**
The menu appears on the TV screen.

CD	Program
TRACK 1	
TRACK 2	
TRACK 3	
TRACK 4	
TRACK 5	
TRACK 6	
TRACK 7	
TRACK 8	Clear All
■ 0:56:35 🎵 STER. 🔊 NORM.	

MP3	Program
TRACK 1.MP3	
TRACK 2.MP3	
TRACK 3.MP3	
TRACK 4.MP3	
TRACK 5.MP3	
TRACK 6.MP3	
TRACK 7.MP3	
TRACK 8.MP3	Clear All
■ 56:35 📶 1 🔊 OFF	
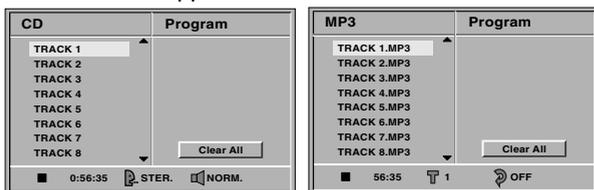
Audio CD menu   **MP3 menu**

2 **Press ▲/▼ to select a track then press PLAY (▷).**
Playback starts.
During playback, the current track's elapsed playing time will appear on the display.
Playback will stop at the end of the disc.

3 **To stop playback at any other time, press STOP (■).**

Pause CD MP3

1 Press PAUSE/STEP (❚❚) during playback.

2 To return to playback, press PLAY (▷) or press PAUSE/STEP (❚❚) again.

Moving to another Track CD MP3

● Press BACKWARD (❙◀◀) or FORWARD (▶▶❙) briefly during playback to go to the next track or to return to the beginning of the current track.

● Press BACKWARD (❙◀◀) twice briefly to step back to the previous track.

● In case of audio CD, to go directly to any track, enter the track number using the numerical buttons (0-9) during playback.

Repeat Track/All/Off CD MP3

1 To repeat the track currently playing, press REPEAT.
The Repeat Track icon appears on the menu screen.

2 To repeat all tracks on a disc, press REPEAT a second time.
The Repeat ALL icon appears on the menu screen.

3 To cancel Repeat mode, press REPEAT a third time.
The Repeat OFF icon appears on the menu screen.

Search CD

1 Press and hold BACKWARD ❙◀◀ or FORWARD ▶▶❙ for about two seconds during playback.
The player will now go into SEARCH mode.

2 Press and hold BACKWARD ❙◀◀ or FORWARD ▶▶❙ repeatedly to select the required speed: ◀◀X2, ◀◀X4, ◀◀X8 (backward) or ▶▶X2, ▶▶X4, ▶▶X8 (forward).

3 Search speed and direction are indicated on the menu screen.

4 To exit SEARCH mode, press PLAY.

Random CD

1 Press RANDOM during playback or when playback is stopped.
The unit automatically begins Random Playback and "RAND." appears on the menu screen.

2 To return to normal playback, press RANDOM repeatedly until "RAND." disappears on the menu screen.

Repeat A-B CD 🔁 A ·   🔁 A B   🔁 OFF

To repeat a sequence.
1 During disc playback, press A-B at your chosen starting point.
The Repeat icon and "A *" appears on the menu screen.

2 Press A-B again at your chosen end point.
The Repeat icon and "A B" appears on the menu screen, and the sequence begins to play repeatedly.

3 To exit the sequence and return to normal play, press A-B again.
The Repeat icon and "OFF" appear on the menu screen.

3D Surround CD 🔊 NORM. 🔊 3D SUR

This unit can produce a 3D Surround effect, which simulates multi-channel audio playback from two conventional stereo speakers, instead of the five or more speakers normally required to listen to multi-channel audio from a home theater system.

1 Press DISPLAY during playback.

2 Use ◀/▶ to select the sound option (🔊 NORM.).
The sound option will be highlighted.

3 Use ▲/▼ to to select "3D SUR".
To turn off the 3D Surround effect, select "NORM.".

Changing the Audio Channel CD 🎵 STER.

Press AUDIO repeatedly during playback to hear a different audio channel (STEREO, LEFT, or RIGHT).

Programmed Playback with Audio CD and MP3 Discs

Programme allows you to store your favorite tracks for a particular disc in the player memory.

Programme can contain 32 tracks (Audio CD) or 60 tracks (MP3 disc).

1 **Insert the disc and close the tray.**
The menu is displayed on the TV screen.

2 **Press PROGRAM during playback or in the stop mode to enter the Programme Edit mode.**
The 🄴 mark will appear to the right of the word Programme on the right side of the menu screen.

🅝 **Note**
Press PROGRAM to exit the Programme Edit mode; the 🄴 mark will disappear.

3 **Press ▲/▼ to select a track, then press SELECT/OK to place the selected track on the Programme list.**

4 **Repeat step 3 to place additional tracks on the Programme list.**

CD	Program 🄴
TRACK 1	TRACK 12
TRACK 2	TRACK 8
TRACK 3	TRACK 10
TRACK 4	TRACK 3
TRACK 5	
TRACK 6	
TRACK 7	
TRACK 8	Clear All
► 0:00:14 STER. NORM.	

Audio CD menu

MP3	Program 🄴
TRACK 1.MP3	TRACK 8.MP3
TRACK 2.MP3	TRACK 2.MP3
TRACK 3.MP3	TRACK 4.MP3
TRACK 4.MP3	TRACK 3.MP3
TRACK 5.MP3	
TRACK 6.MP3	
TRACK 7.MP3	
TRACK 8.MP3	Clear All
■ 56:35 🝵 1 OFF	
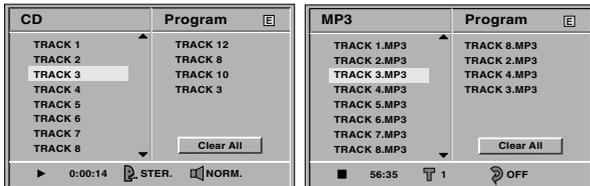
MP3 menu

5 **Press ▶.**
The programmed track you selected last is highlighted on the Programme list.

6 **Press ▲/▼ to select the track you want to start playing.**
Press TITLE to move to the next page.
Press DISC MENU to move to the previous page.

7 **Press PLAY (▷) to start.**
Playback begins in the order in which you programmed the tracks and "PROG." appears on the menu screen. Playback stops after all of the tracks on the Programme list have played once.

Programmed Playback with Video CD

🅝 **Note**
On a Video CD with PBC, you must set PBC to Off on the setup menu to use the Programme function. See page 19.

1 **Insert Video CD and close the tray.**

VCD	Program 🄴
TRACK 1	
TRACK 2	
TRACK 3	
TRACK 4	
TRACK 5	
TRACK 6	
TRACK 7	
TRACK 8	Clear All
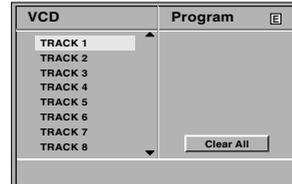
2 **Press PROGRAM while playback is stopped.**
The VCD Programme menu will appear.

🅝 **Note**
Press RETURN or PROGRAM to exit the Programme menu.

3 **Follow steps 3-7 of "Programmed Playback with Audio CD and MP3 Disc" on left.**

Repeat Programmed Tracks

● To repeat the track currently playing, press REPEAT.
The Repeat Track icon appears on the menu screen.
● To repeat all tracks on the programme list, press REPEAT a second time.
The Repeat All icon appears on the menu screen.
● To cancel Repeat mode, press REPEAT a third time.
The Repeat Off icon appears on the menu screen.

Erasing a Track from Programme List

1 Press PROGRAM during playback or in the stop mode to enter the Programme Edit mode.
The 🄴 mark will appear.
2 Press ▶ to move to the Programme list.
3 Use ▲/▼ to select the track that you wish to erase from the Programme list.
4 Press CLEAR.
The track will be erased from the Programme list.

Erasing the Complete Programme List

1 Follow steps 1-2 of "Erasing a Track from Programme List" as above.
2 Use ▲/▼ to select "Clear All", then press SELECT/OK.
The complete Programme for the disc will be erased.
The programmes are also cleared when the disc is removed.

To resume normal playback from programmed playback

Press and hold PROGRAM for 3 seconds until "PROG." indicator disappears in the display window.

Additional Operation - VCR part

On Screen Display

You may easily display the current time or tape counter and amount of tape left, day, month, year, day of week, programme channel, tape speed and operational mode of your DVD+VCR on the TV screen.
If a recording is taking place these On Screen Displays will not be recorded onto the tape.

1 Press CLK/CNT to display.

VCR Function/Tape Speed		Channel Programme
STOP SP STEREO		BBC1 STEREO NICAM
Day/Month/Year/Day of Week		Clock/Tape Counter & Amount of Tape Left
24. 04. 02 WED		12:00
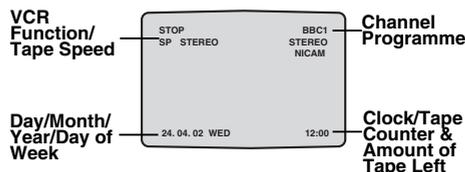
2 Press CLK/CNT repeatedly to display the tape counter.

During playback or recording, the amount of tape left is displayed with the tape counter.

3 After 3 seconds the display will clear from the TV screen, leaving only the clock or tape counter and amount of tape left on the TV screen. Press CLK/CNT again to remove all displays from the TV screen.

The amount of tape left will only be accurate on E-180 and E-240 tapes.
The amount of tape left indicator may not be accurate, since it depends on the type and condition tape used. Also, the amount of tape left indicator is not displayed just after a cassette has been inserted, or after playback or recording has begun.

Tape Counter Memory Stop

The **Digital Tape Counter** can be displayed on your TV screen instead of the time by pressing **CLK/CNT** on the remote control.
The Digital Tape Counter indicates the relative positions of recordings on the tape.

1 Press CLK/CNT repeatedly until the counter is displayed on the TV screen.

2 Press CLEAR to set the counter to 0:00:00. Press PLAY (▷) or start recording.

The tape counter will display the actual play time in hours, minutes and seconds.

3 Press STOP when playback or recording is complete.

4 Press BACKWARD.

The tape will rewind and automatically stop when the counter returns to 0:00:00.

Child Lock

The control buttons on the front of the DVD+VCR can be switched off so that your DVD+VCR can only be operated using the remote control.

1 Press LOCK.

🔒 will appear in the display window.

None of the buttons on the front of your DVD+VCR will work.

If any buttons on the front of your DVD+VCR are pressed 🔒 will flicker in the display for a few seconds.

2 Press LOCK again to switch off the child lock.

🔒 will disappear in the display.

Friendly User Guide (Video Doctor)

This feature informs you that there is a problem with your DVD+VCR. These error messages will appear on the TV screen.

VIDEO DOCTOR
▶ HEAD STATUS
TAPE STATUS
NO. OF TIMER PROGRAMME
NEXT TIMER PROGRAMME
OK
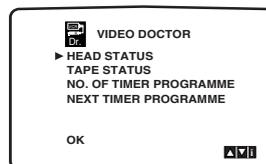
1 Press i. Press ◀ or ▶ to select Dr. and press OK.

2 Press ▲ or ▼ to check a problem.

HEAD STATUS
● **PLEASE CLEAN:**
Clean your video heads using the video head cleaning cassette.
If noise still remains in the playback picture, contact your SANYO authorized service agent.

TAPE STATUS
● **NOT RECORDABLE:**
Insert a tape with its protection tab in place

NO. OF TIMER PROGRAMME
● **2**
Shows the number of timer recording.

NEXT TIMER PROGRAMME
● **BBC1 26 10:00~11:00 SP**
Shows the current status of timer recording.

3 Press i to remove the menus from the TV screen.

Hi-Fi Stereo Sound System

Your DVD+VCR will record and play back Hi-Fi stereo sound. In addition it has a NICAM digital stereo sound decoder. This allows you to record and play back the sound in several different ways. Video cassettes recorded on your DVD+VCR will have a normal mono audio track and two VHS Hi-Fi stereo audio tracks. These stereo tracks allow you to make audio recordings in Hi-Fi stereo or bilingual mode from a TV broadcast, stereo audio system, video disc or another Hi-Fi VCR.

1 **Your DVD+VCR's NICAM digital sound decoder allows you to enjoy broadcasts with NICAM sound, as well as standard stereo NICAM, bilingual and mono sound.**
The particular type of sound received or that recorded will be briefly displayed on the TV screen for a couple of seconds:
STEREO
Sound is automatically recorded on the Hi-Fi stereo and mono tracks of the video tape.
BIL NICAM
Both audio channels will be recorded on the Hi-Fi stereo tracks. The primary language channel (left) will be recorded on the mono track of the video tape.
MONO
The sound is recorded on the Hi-Fi tracks and the mono track of the video tape without any separation.

2 **Press AUDIO repeatedly until the desired audio mode appears.**

The choice is **STEREO, LEFT** (left channel)**, RIGHT** (right channel) and **MONO**.
In **BIL NICAM** playback the primary language is output on the left channel and the secondary language is output simultaneously from the right channel when audio output is set to **STEREO**.
The primary language will be output from both channels when the audio setting is **MONO**.
Please note that when adjusting the tracking control Hi-Fi stereo sound may revert to **MONO**.

3 **Press i to return to a TV picture.**

Note
If the quality of stereo sound being received is poor, the broadcast is automatically received in monaural with better quality.
Still, if the quality of the sound is poor, set NIC in the main menu to OFF (see p. 13). NICAM broadcasts will be detected.

Widescreen Compatibility 16:9

Your DVD+VCR can record and play back widescreen aspect ratio programmes (16:9). To record a wide screen format programme successfully the correct type of widescreen signal must be broadcast by the TV station.
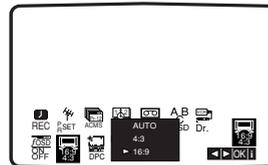
1 **Press i and press ◄ or ► to select 16:9/4:3.** Press **OK**.

2 **Press ▲ or ▼ repeatedly to select : AUTO, 4:3 or 16:9.**

AUTO:
Automatically plays back Widescreen programmes as Widescreen and Normal programmes as normal.
4:3:
Only for playing back and recording Normal format recordings (4:3).
16:9:
Only for playing back and recording Widescreen format recordings (16:9).

3 **Press i to remove the menus.**

Note
To enjoy Widescreen playback you must connect your DVD+VCR to the TV using a SCART lead.

Additional Operation - DVD part

Video Mode Setting `DVD` `VCD2.0` `VCD1.1`

- With certain discs, the playback picture may be flickering or Dot Crawl is shown on straight lines. That means Vertical interpolation or De-interlace is not perfectly matched with the disc. In this case, the picture quality may be improved by changing the video mode.

- To change the video mode, press and hold **DISPLAY** about 3 seconds during disc playback. The new video mode number selected is displayed on the TV screen. Check whether the video quality has improved. If not, repeat the above procedure until picture quality is improved.

- Video mode change sequence:
  MODE1 → MODE2 → MODE3 → MODE4 → MODE5 → MODE1

- If you turn off the the power, the video mode will be back to initial state (MODE1).

Notes on MP3 Discs

About MP3

- An MP3 file is audio data compressed by using MPEG1, the audio layer-3 file-coding scheme. We call files that have the ".mp3" file extension "MP3 files".
- The player can not read an MP3 file that has a file extension other than ".mp3".
- The player can not read a fake MP3 file that has a file extension ".mp3".

MP3 Disc compatibility with this player is limited as follows:

1. Sampling Frequency / only at 44.1kHz
2. Bit rate/ within 32 - 320kbps
3. CD-R physical format should be "ISO 9660"
4. If you record MP3 files using the software which cannot create a FILE SYSTEM, for example "Direct-CD" etc., it is impossible to playback MP3 files. We therefore recommend that you use "Easy-CD Creator", which creates an ISO9660 file system.
5. A single session disc requires MP3 files in the first track. If there is no MP3 file in the 1st track, it cannot playback MP3 files. If you wish to playback MP3 files, format all the data in the disc or use a new one.
6. File names should be named using 8 letters or less and must incorporate the ".mp3" extension e.g. "********.MP3".
7. Do not use special characters such as "_?!><+*}{`[@]:;\.," etc.
8. Total number of files on the disc should be less than 200.
9. Use 74-minute CD-R discs (650M), do not use 80-minute CD-R (700M) software.

This DVD player requires discs/recordings to meet certain technical standards in order to achieve optimal playback quality. Pre-recorded DVDs are automatically set to these standards. There are many different types of recordable disc formats (including CD-R containing MP3 files).

Customers should also note that permission is required in order to download MP3 files and music from the Internet. Our company has no right to grant such permission. Permission should always be sought from the copyright owner.

Special Recording

Copying from DVD To VCR

This unit allows you to copy the contents of a DVD to a VHS tape.

𝒩 Note

If the DVD you are attempting to copy is copy protected, you will not be able to copy the disc. It is not permitted to copy Macrovision encoded DVDs. "COPY PRO-TECTED DISC" appears on the TV screen.

1 **Insert Disc.**
Insert the disc you wish to copy in the DVD deck and close the disc tray.

2 **Insert VHS Tape.**
Insert a blank VHS video tape into the VCR deck.

3 **Press PLAY (▷) on the DVD deck.**
The DVD will go into play mode
- If the DVD disc menu appears, you may need to press the PLAY (▷) manually to begin copying.

4 **Press REC (●) on the VCR deck.**
The DVD+VCR will go into Record mode.

5 **Stop the Copy Process.**
When the DVD is finished playing, press the VCR on the remote control and then press STOP (■) to end the copy.
You must stop the Copy process manually when the DVD movie ends, or the unit may replay and record over and over again.

Recording from another video recorder

With the DVD+VCR you can make recordings from an external source, such as copying from another VCR or a camcorder.

𝒩 Note

In the following description, this DVD+VCR will be one used for recording and other VCR will be used for play-back.

1 **VCR should be connected to the one of the SCART sockets on the rear panel of your DVD+VCR or the AV INPUT sockets on the front panel of your DVD+VCR.**

2 **Press AV until the socket you wish to record from is displayed.**

AV1 Sound and Picture recording using the lower EURO AV1 socket on the back of your DVD+VCR.
AV2 Sound and Picture recording using the upper EURO AV2 socket on the back of your DVD+VCR.
AV3 Sound and Picture recording from **AV INPUT** sockets on the front of your DVD+VCR.

3 **Insert the recorded tape into VCR and a blank tape into DVD+VCR.**

4 **To start recording, press REC (●) on DVD+VCR and press PLAY on VCR.**

5 **When you want to finish copying, press the STOP (■) on both appliances.**

Troubleshooting - DVD part

Check the following guide for the possible cause of a problem before contacting service.

Symptom	Cause	Correction
DVD or VCR do not work properly.	● DVD or VCR button is not switched properly.	● Refer to page 8.
No power.	● The mains lead is disconnected.	● Plug the mains lead into the wall outlet securely.
The power is on, but the DVD player does not work.	● No disc is inserted.	● Insert a disc. (Check that the DVD, VCD or, audio CD indicator in the display window is lit.)
No picture.	● The TV is not set to receive DVD signal output.	● Select the appropriate video input mode on the TV so the picture from the DVD+VCR appears on the TV screen.
	● The video cable is not connected securely.	● Connect the video cable into the jacks securely.
No sound.	● The equipment connected with the audio cable is not set to receive DVD signal output.	● Select the correct input mode of the audio receiver so you can listen to the sound from the DVD+VCR.
	● The audio cables are not connected securely.	● Connect the audio cable into the jacks securely.
	● The power of the equipment connected with the audio cable is turned off.	● Turn on the equipment connected with the audio cable.
	● The Digital Audio Output is set to the wrong position.	● Set the Digital Audio Output to the correct position, then turn on the DVD+VCR again by pressing ⏻/I.
The picture is poor.	● The disc is dirty.	● Clean the disc.
The DVD player does not start playback.	● An unplayable disc is inserted.	● Insert a playable disc. (Check the disc type, colour system and Regional code.)
	● The disc is placed upside down.	● Place the disc with the playback side down.
	● The disc is not placed within the guide.	● Place the disc on the disc tray correctly inside the guide.
	● The disc is dirty.	● Clean the disc.
	● The Rating level is set.	● Cancel the Rating function or change the rating level.
The remote control does not work properly.	● There is an obstacle in the path of the remote control and this unit.	● Remove the obstacle.
	● The batteries in the remote control are exhausted.	● Replace the batteries with new ones.

Troubleshooting - VCR part

Symptom	Cause	Correction
The tape does not run during recording.	• The DVD+VCR is in the RECORD PAUSE MODE.	• Press **PAUSE**/**STEP** (❚❚) to resume recording.
The tape will not rewind or fast-forward.	• The tape is already fully rewound or fast-forwarded.	• Check the tape.
The playback picture does not appear while the tape is running.	• If you're using only the RF aerial cable for connection.	• Set the TV to the Video channel (see p. 12).
Noise appears during visual search.	• This is normal.	• Turn camcorder on and operate properly.
Noise appears during normal playback.	• The automatic tracking mode is engaged.	• Try manual tracking (see p. 21).
Breaks are noticeable in Hi-Fi soundtrack.	• The automatic tracking mode is engaged.	• Try manual tracking (see p. 21).
Recording cannot be started.	• There is no tape loaded, or the tape loaded has had its record safety tab removed.	• Insert a tape, or using adhesive tape, cover the hole where the tab was removed.
Tape-to-tape editing is not possible.	• The source (another VCR, camcorder) has not been properly connected.	• Confirm that the camcorder is properly connected.
Timer recording won't work.	• The clock/or the timer have been set incorrectly. • The timer is not engaged. • The loaded tape has had its record safety tab removed.	• Re-perform the clock and/or timer settings. • Press ⏻/❙ and confirm that the timer indicator is displayed on the DVD+VCR's Display. • Insert a pate with adhesive tape, or insert a tape with the record safety tab intact.
PLEASE CHECK appears when entering PlusCode programming number.	• Incorrect the PlusCode programming number.	• Re-enter the PlusCode programming number.
VIDEO Plus+ system does not record the TV station or time you request.	• Your VIDEO Plus+ system channel position has been incorrectly set.	• Check your VIDEO Plus+ system set-up (see p. 12-13).
No Hi-Fi sound.	• Audio mode is not set properly.	• Select "STEREO" by repeatedly pressing **AUDIO** on the remote control.
No NICAM sound recording.	• NICAM mode is not set properly.	• Make sure NIC in the menu is set to "AUTO" for the station to be recorded.

Moisture Condensation	
Moisture condensation can occur:	In locations where moisture condensation may occur:
• When the DVD+VCR is moved from a cold place to a warm place. • Under extremely humid conditions.	• Keep the DVD+VCR plugged into an AC power outlet with ⏻/❙ On. This will help prevent condensation. • When condensation has occurred, wait a few hours for the DVD+VCR to dry before using it.

Video Head Cleaning
Whenever a video cassette is inserted into or ejected from your DVD+VCR the video head is automatically cleaned. This should mean that additional head cleaning should not be necessary. However dirt accumulating on the head after a long period of time can cause the playback picture to become blurred or broken up. High quality video cassette tapes will not normally deposit dirt onto the video head, but old or damaged tapes might.

Language Code List

Enter the appropriate code number for the initial settings "Disc Audio", "Disc Subtitle" and/or "Disc Menu" (See page 18).

Code	Language	Code	Language	Code	Language	Code	Language
6566	Abkhazian	7074	Fiji	7678	Lingala	8373	Singhalese
6565	Afar	7073	Finnish	7684	Lithuanian	8375	Slovak
6570	Afrikaans	7082	French	7775	Macedonian	8376	Slovenian
8381	Albanian	7089	Frisian	7771	Malagasy	8379	Somali
6577	Ameharic	7176	Galician	7783	Malay	6983	Spanish
6582	Arabic	7565	Georgian	7776	Malayalam	8385	Sudanese
7289	Armenian	6869	German	7784	Maltese	8387	Swahili
6583	Assamese	6976	Greek	7773	Maori	8386	Swedish
6588	Aymara	7576	Greenlandic	7782	Marathi	8476	Tagalog
6590	Azerbaijani	7178	Guarani	7779	Moldavian	8471	Tajik
6665	Bashkir	7185	Gujarati	7778	Mongolian	8465	Tamil
6985	Basque	7265	Hausa	7865	Nauru	8484	Tatar
6678	Bengali; Bangla	7387	Hebrew	7869	Nepali	8469	Telugu
6890	Bhutani	7273	Hindi	7879	Norwegian	8472	Thai
6672	Bihari	7285	Hungarian	7982	Oriya	6679	Tibetan
6682	Breton	7383	Icelandic	8065	Panjabi	8473	Tigrinya
6671	Bulgarian	7378	Indonesian	8083	Pashto, Pushto	8479	Tonga
7789	Burmese	7365	Interlingua	7065	Persian	8482	Turkish
6669	Byelorussian	7165	Irish	8076	Polish	8475	Turkmen
7577	Cambodian	7384	Italian	8084	Portuguese	8487	Twi
6765	Catalan	7465	Japanese	8185	Quechua	8575	Ukrainian
9072	Chinese	7487	Javanese	8277	Rhaeto-Romance	8582	Urdu
6779	Corsican	7578	Kannada	8279	Rumanian	8590	Uzbek
7282	Croatian	7583	Kashmiri	8285	Russian	8673	Vietnamese
6783	Czech	7575	Kazakh	8377	Samoan	8679	Volapük
6865	Danish	7589	Kirghiz	8365	Sanskrit	6789	Welsh
7876	Dutch	7579	Korean	7168	Scots Gaelic	8779	Wolof
6978	English	7585	Kurdish	8382	Serbian	8872	Xhosa
6979	Esperanto	7679	Laothian	8372	Serbo-Croatian	7473	Yiddish
6984	Estonian	7665	Latin	8378	Shona	8979	Yoruba
7079	Faroese	7686	Latvian, Lettish	8368	Sindhi	9085	Zulu

REFERENCE

Country Code List

Enter the appropriate code number for the initial setting "Country Code" (See page 20).

Code	Country	Code	Country	Code	Country	Code	Country
AD	Andorra	ER	Eritrea	LC	Saint Lucia	SC	Seychelles
AE	United Arab Emirates	ES	Spain	LI	Liechtenstein	SD	Sudan
AF	Afghanistan	ET	Ethiopia	LK	Sri Lanka	SE	Sweden
AG	Antigua and Barbuda	FI	Finland	LR	Liberia	SG	Singapore
AI	Anguilla	FJ	Fiji	LS	Lesotho	SH	Saint Helena
AL	Albania	FK	Falkland Islands	LT	Lithuania	SI	Slovenia
AM	Armenia	FM	Micronesia	LU	Luxembourg	SJ	Svalbard and Jan Mayen
AN	Netherlands Antilles	FO	Faroe Islands	LV	Latvia		Islands
AO	Angola	FR	France	LY	Libya	SK	Slovak Republic
AQ	Antarctica	FX	France (European	MA	Morocco	SL	Sierra Leone
AR	Argentina		Territory)	MC	Monaco	SM	San Marino
AS	American Samoa	GA	Gabon	MD	Moldavia	SN	Senegal
AT	Austria	GB	Great Britain	MG	Madagascar	SO	Somalia
AU	Australia	GD	Grenada	MH	Marshall Islands	SR	Suriname
AW	Aruba	GE	Georgia	MK	Macedonia	ST	Saint Tome and Principe
AZ	Azerbaidjan	GF	French Guyana	ML	Mali	SU	Former USSR
BA	Bosnia-Herzegovina	GH	Ghana	MM	Myanmar	SV	El Salvador
BB	Barbados	GI	Gibraltar	MN	Mongolia	SY	Syria
BD	Bangladesh	GL	Greenland	MO	Macau	SZ	Swaziland
BE	Belgium	GM	Gambia	MP	Northern Mariana Islands	TC	Turks and Caicos Islands
BF	Burkina Faso	GN	Guinea	MQ	Martinique (French)	TD	Chad
BG	Bulgaria	GP	Guadeloupe (French)	MR	Mauritania	TF	French Southern
BH	Bahrain	GQ	Equatorial Guinea	MS	Montserrat		Territories
BI	Burundi	GR	Greece	MT	Malta	TG	Togo
BJ	Benin	GS	S. Georgia & S. Sandwich	MU	Mauritius	TH	Thailand
BM	Bermuda		Isls.	MV	Maldives	TJ	Tadjikistan
BN	Brunei Darussalam	GT	Guatemala	MW	Malawi	TK	Tokelau
BO	Bolivia	GU	Guam (USA)	MX	Mexico	TM	Turkmenistan
BR	Brazil	GW	Guinea Bissau	MY	Malaysia	TN	Tunisia
BS	Bahamas	GY	Guyana	MZ	Mozambique	TO	Tonga
BT	Bhutan	HK	Hong Kong	NA	Namibia	TP	East Timor
BV	Bouvet Island	HM	Heard and McDonald	NC	New Caledonia (French)	TR	Turkey
BW	Botswana		Islands	NE	Niger	TT	Trinidad and Tobago
BY	Belarus	HN	Honduras	NF	Norfolk Island	TV	Tuvalu
BZ	Belize	HR	Croatia	NG	Nigeria	TW	Taiwan
CA	Canada	HT	Haiti	NI	Nicaragua	TZ	Tanzania
CC	Cocos (Keeling) Islands	HU	Hungary	NL	Netherlands	UA	Ukraine
CF	Central African Republic	ID	Indonesia	NO	Norway	UG	Uganda
CG	Congo	IE	Ireland	NP	Nepal	UK	United Kingdom
CH	Switzerland	IL	Israel	NR	Nauru	UM	USA Minor Outlying
CI	Ivory Coast	IN	India	NU	Niue		Islands
CK	Cook Islands	IO	British Indian Ocean	NZ	New Zealand	US	United States
CL	Chile		Territory	OM	Oman	UY	Uruguay
CM	Cameroon	IQ	Iraq	PA	Panama	UZ	Uzbekistan
CN	China	IR	Iran	PE	Peru	VA	Vatican City State
CO	Colombia	IS	Iceland	PF	Polynesia (French)	VC	Saint Vincent &
CR	Costa Rica	IT	Italy	PG	Papua New Guinea		Grenadines
CS	Former Czechoslovakia	JM	Jamaica	PH	Philippines	VE	Venezuela
CU	Cuba	JO	Jordan	PK	Pakistan	VG	Virgin Islands (British)
CV	Cape Verde	JP	Japan	PL	Poland	VI	Virgin Islands (USA)
CX	Christmas Island	KE	Kenya	PM	Saint Pierre and Miquelon	VN	Vietnam
CY	Cyprus	KG	Kyrgyzstan	PN	Pitcairn Island	VU	Vanuatu
CZ	Czech Republic	KH	Cambodia6	PR	Puerto Rico	WF	Wallis and Futuna Islands
DE	Germany	KI	Kiribati	PT	Portugal	WS	Samoa
DJ	Djibouti	KM	Comoros	PW	Palau	YE	Yemen
DK	Denmark	KN	Saint Kitts & Nevis Anguilla	PY	Paraguay	YT	Mayotte
DM	Dominica	KP	North Korea	QA	Qatar	YU	Yugoslavia
DO	Dominican Republic	KR	South Korea	RE	Reunion (French)	ZA	South Africa
DZ	Algeria	KW	Kuwait	RO	Romania	ZM	Zambia
EC	Ecuador	KY	Cayman Islands	RU	Russian Federation	ZR	Zaire
EE	Estonia	KZ	Kazakhstan	RW	Rwanda	ZW	Zimbabwe
EG	Egypt	LA	Laos	SA	Saudi Arabia		
EH	Western Sahara	LB	Lebanon	SB	Solomon Islands		

Specification

General

Power requirements	AC 200-240 V , 50 Hz
Power consumption	23 W
Dimensions (approx.)	430 X 97.5 X 360 mm (w x h x d)
Mass (approx.)	5.3 kg (11.7 lbs)
Operating temperature	5˚C to 40˚C (41˚F to 104˚F)
Timer	24-hour display type
Operating humidity	5 % to 90 %

DVD Specifications

Laser	Semiconductor laser, wavelength 650 nm
Signal system	PAL/NTSC
Frequency response	DVD (PCM 96 kHz): 8 Hz to 44 kHz
	DVD (PCM 48 kHz): 8 Hz to 22 kHz
	CD: 8 Hz to 20 kHz
Signal-to-noise ratio	More than 100 dB (ANALOG OUT connectors only)
Harmonic distortion	Less than 0.008%
Dynamic range	More than 100 dB (DVD)
	More than 95 dB (CD)

Outputs

VIDEO OUT	1.0 V(p-p), 75 ohms, sync negative
Audio output (digital audio)	0.5 V(p-p), 75 ohms, RCA jack x 1
Audio output (analog audio)	2.0 Vrms (1 kHz, 0 dB), 330 ohms, RCA jack (L, R) x 1/SCART(TO TV)

VCR Specifications

Head system	4 heads helical scan azimuth system
Television system	PAL I colour system
Recording format	PAL
RF OUT	I
RF Modulator	UHF 22-68 (Adjustable)
Tape speed	PAL/MESECAM; 23.39 mm/s (SP), 16.69 mm/s (LP)
	NTSC (Playback only); 35.35 mm/s (SP), 16.67 mm/s (LP),
	11.12 mm/s (EP)
Maximum recording time	SP: 4 h (E-240 tape), LP: 8 h (E-240 tape)
Rewind time	About 180 min (E-180 tape)
Input level	VIDEO: 1.0 V(p-p), 75 ohms, unbalanced
	AUDIO: -6.0 dBm, more than 10 kohms (SCART)
	-6.0 dBm, more than 47 kohms (RCA)
Output level	VIDEO: 1.0 V(p-p), 75 ohms, unbalanced
	AUDIO: -6.0 dBm, less than 1 kohm
Signal-to-noise ratio	VIDEO: More than 43 dB
	AUDIO: More than 70 dB
Dynamic range	AUDIO: More than 85 dB

Accessory:

Video cable x 1, Audio cable x 1, RF aerial cable x 1, Remote control x 1, Batteries x 2

● Design and specifications are subject to change without notice.

GUARANTEE TO CUSTOMER

Sanyo Europe Ltd. (the Company) guarantees to the initial retail purchaser that if this equipment is or becomes defective and that, in the opinion of the Company, the defect is due to faulty material or workmanship the Company will, for a period of 12 calendar months from the date of sale to the original purchaser repair or replace, at its sole option, free of charge, any such defective component part of the equipment, always provided that:-

1. The equipment has at all times been used in accordance with the operating instructions issued by the Company, and has not been connected to an electrical mains supply for which it has not been adjusted.
2. Accidental damage, or damage caused by negligence or misuse by the user, including leakage from exhausted batteries, is specifically excluded.
3. Unauthorised repairs, or any modification to the equipment which has not been expressly approved by the Company, shall render this guarantee null and void.
4. Failure due to fair wear and tear of any item, such as batteries, record playing styli, and tape recording, playback and erase heads and head cleaning is specifically excluded.

This guarantee is not transferable and is only applicable within the United Kingdom (and the Republic of Ireland). Nothing in this express guarantee affects the statutory rights available to the purchaser of this equipment.

Dear Customer Thank you for buying Sanyo. This equipment should give you many years of pleasure and faithful service but in the event that a fault occurs, the following notes for your guidance may be helpful:-

1. PLEASE RETAIN YOUR PURCHASE RECEIPT WHICH WILL BE REQUIRED FOR SERVICE DURING GUARANTEE.
2. If your Sanyo equipment proves faulty during the period of guarantee, take it or send it back to the dealer who originally supplied it together with this guarantee and the proof of purchase. We have made arrangements with our approved dealers under which they will carry out in guarantee service repairs on our behalf. In this way, we hope to reduce to a minimum the amount of time you will be without your equipment.
3. If for some reason it is impossible to return the equipment to the original supplier, please contact our Service Administration Department at the address below for further advice.
4. Should the equipment require servicing after the expiry of the guarantee period, take or send it to the original supplier or any other Sanyo dealer. He will be pleased to give you a quotation for the repair. If you are in any doubt about what to do, write to us at the address below or telephone:

Sanyo Europe Ltd.
Sanyo House Otterspool Way, Watford, Hertfordshire WD25 8JX Tel: (01923) 246363

SANYO

SANYO Electric Co., Ltd.